

Indemnification of Damage in the Event of a Nuclear Accident

Indemnisation des dommages en cas d'accident nucléaire

Workshop Proceedings
Paris, France, 26-28 November 2001

Compte rendu d'un atelier
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NUCLEAR ENERGY AGENCY
ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

AGENCE POUR L'ÉNERGIE NUCLÉAIRE
ORGANISATION DE COOPÉRATION ET DE DÉVELOPPEMENT ÉCONOMIQUES

ORGANISATION DE COOPÉRATION ET DE DÉVELOPPEMENT ÉCONOMIQUES

En vertu de l'article 1^{er} de la Convention signée le 14 décembre 1960, à Paris, et entrée en vigueur le 30 septembre 1961, l'Organisation de coopération et de développement économiques (OCDE) a pour objectif de promouvoir des politiques visant :

- à réaliser la plus forte expansion de l'économie et de l'emploi et une progression du niveau de vie dans les pays Membres, tout en maintenant la stabilité financière, et à contribuer ainsi au développement de l'économie mondiale ;
- à contribuer à une saine expansion économique dans les pays Membres, ainsi que les pays non membres, en voie de développement économique ;
- à contribuer à l'expansion du commerce mondial sur une base multilatérale et non discriminatoire conformément aux obligations internationales.

Les pays Membres originaires de l'OCDE sont : l'Allemagne, l'Autriche, la Belgique, le Canada, le Danemark, l'Espagne, les États-Unis, la France, la Grèce, l'Irlande, l'Islande, l'Italie, le Luxembourg, la Norvège, les Pays-Bas, le Portugal, le Royaume-Uni, la Suède, la Suisse et la Turquie. Les pays suivants sont ultérieurement devenus Membres par adhésion aux dates indiquées ci-après : le Japon (28 avril 1964), la Finlande (28 janvier 1969), l'Australie (7 juin 1971), la Nouvelle-Zélande (29 mai 1973), le Mexique (18 mai 1994), la République tchèque (21 décembre 1995), la Hongrie (7 mai 1996), la Pologne (22 novembre 1996), la Corée (12 décembre 1996) et la République slovaque (14 décembre 2000). La Commission des Communautés européennes participe aux travaux de l'OCDE (article 13 de la Convention de l'OCDE).

L'AGENCE DE L'OCDE POUR L'ÉNERGIE NUCLÉAIRE

L'Agence de l'OCDE pour l'énergie nucléaire (AEN) a été créée le 1^{er} février 1958 sous le nom d'Agence européenne pour l'énergie nucléaire de l'OECE. Elle a pris sa dénomination actuelle le 20 avril 1972, lorsque le Japon est devenu son premier pays Membre de plein exercice non européen. L'Agence compte actuellement 27 pays Membres de l'OCDE : l'Allemagne, l'Australie, l'Autriche, la Belgique, le Canada, le Danemark, l'Espagne, les États-Unis, la Finlande, la France, la Grèce, la Hongrie, l'Irlande, l'Islande, l'Italie, le Japon, le Luxembourg, le Mexique, la Norvège, les Pays-Bas, le Portugal, la République de Corée, la République slovaque, la République tchèque, le Royaume-Uni, la Suède, la Suisse et la Turquie. La Commission des Communautés européennes participe également à ses travaux.

La mission de l'AEN est :

- d'aider ses pays Membres à maintenir et à approfondir, par l'intermédiaire de la coopération internationale, les bases scientifiques, technologiques et juridiques indispensables à une utilisation sûre, respectueuse de l'environnement et économique de l'énergie nucléaire à des fins pacifiques ; et
- de fournir des évaluations faisant autorité et de dégager des convergences de vues sur des questions importantes qui serviront aux gouvernements à définir leur politique nucléaire, et contribueront aux analyses plus générales des politiques réalisées par l'OCDE concernant des aspects tels que l'énergie et le développement durable.

Les domaines de compétence de l'AEN comprennent la sûreté nucléaire et le régime des autorisations, la gestion des déchets radioactifs, la radioprotection, les sciences nucléaires, les aspects économiques et technologiques du cycle du combustible, le droit et la responsabilité nucléaires et l'information du public. La Banque de données de l'AEN procure aux pays participants des services scientifiques concernant les données nucléaires et les programmes de calcul.

Pour ces activités, ainsi que pour d'autres travaux connexes, l'AEN collabore étroitement avec l'Agence internationale de l'énergie atomique à Vienne, avec laquelle un Accord de coopération est en vigueur, ainsi qu'avec d'autres organisations internationales opérant dans le domaine de l'énergie nucléaire.

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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Pursuant to Article 1 of the Convention signed in Paris on 14th December 1960, and which came into force on 30th September 1961, the Organisation for Economic Co-operation and Development (OECD) shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development; and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The original Member countries of the OECD are Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The following countries became Members subsequently through accession at the dates indicated hereafter: Japan (28th April 1964), Finland (28th January 1969), Australia (7th June 1971), New Zealand (29th May 1973), Mexico (18th May 1994), the Czech Republic (21st December 1995), Hungary (7th May 1996), Poland (22nd November 1996), Korea (12th December 1996) and the Slovak Republic (14 December 2000). The Commission of the European Communities takes part in the work of the OECD (Article 13 of the OECD Convention).

NUCLEAR ENERGY AGENCY

The OECD Nuclear Energy Agency (NEA) was established on 1st February 1958 under the name of the OEEC European Nuclear Energy Agency. It received its present designation on 20th April 1972, when Japan became its first non-European full Member. NEA membership today consists of 27 OECD Member countries: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, Norway, Portugal, Republic of Korea, Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Commission of the European Communities also takes part in the work of the Agency.

The mission of the NEA is:

- to assist its Member countries in maintaining and further developing, through international co-operation, the scientific, technological and legal bases required for a safe, environmentally friendly and economical use of nuclear energy for peaceful purposes, as well as
- to provide authoritative assessments and to forge common understandings on key issues, as input to government decisions on nuclear energy policy and to broader OECD policy analyses in areas such as energy and sustainable development.

Specific areas of competence of the NEA include safety and regulation of nuclear activities, radioactive waste management, radiological protection, nuclear science, economic and technical analyses of the nuclear fuel cycle, nuclear law and liability, and public information. The NEA Data Bank provides nuclear data and computer program services for participating countries.

In these and related tasks, the NEA works in close collaboration with the International Atomic Energy Agency in Vienna, with which it has a Co-operation Agreement, as well as with other international organisations in the nuclear field.

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AVANT-PROPOS

L'Atelier sur l'indemnisation des dommages en cas d'accident nucléaire, qui s'est tenu du 26 au 28 novembre 2001 à Paris, France, a été organisé par l'Agence de l'OCDE pour l'énergie nucléaire, en étroite collaboration avec les autorités françaises. Cet atelier constituait un prolongement de l'Exercice international d'urgence nucléaire INEX 2000, fondé sur la simulation en mai 2001 d'un accident nucléaire à la centrale nucléaire de Gravelines en France. Intégrer un volet responsabilité civile dans un tel exercice, en principe de nature essentiellement technique, traduisait l'intérêt des acteurs du secteur nucléaire de mettre à l'épreuve les mécanismes de responsabilité civile et de réparation des dommages nucléaires, tant dans le pays de l'accident que dans les pays voisins susceptibles d'être eux aussi affectés par cet accident. Dans le cadre plus restreint des États Parties à la Convention de Paris sur la responsabilité civile dans le domaine de l'énergie nucléaire et à la Convention complémentaire de Bruxelles et dans la perspective de la révision de ces instruments, il a également été jugé intéressant d'examiner la manière dont ces conventions pourraient s'appliquer dans ce cas concret, notamment en ce qui concerne les mécanismes internationaux d'indemnisation des dommages nucléaires qu'elles ont mis en place.

En règle générale, les plans nationaux ou internationaux d'intervention en cas d'accident nucléaire mettent l'accent sur la gestion de l'accident tant au niveau de l'installation que hors site, ainsi que sur l'intervention des diverses instances compétentes pour maîtriser ou minimiser ses conséquences, sans trop s'attarder à la prise en compte des besoins particuliers des personnes placées brusquement dans une situation d'urgence. De même, les études consacrées au régime international de responsabilité civile nucléaire se situent habituellement dans une perspective globalisante qui laisse peu de place au traitement des cas individuels. Le fait que dans les pays occidentaux, on ne dispose fort heureusement que de peu d'expérience pratique sur l'indemnisation d'un sinistre d'origine nucléaire, n'a pas non plus contribué à sensibiliser les autorités publiques à l'importance de cette question qu'il importe de traiter de façon aussi concrète que possible. Cet atelier de l'AEN constitue une première tentative dans cette direction.

En vue de couvrir l'ensemble des questions juridiques et pratiques susceptibles de se poser lors de la gestion des conséquences d'un accident nucléaire au plan de la responsabilité pour les dommages causés aux tiers, il a été décidé d'organiser l'atelier selon trois phases principales, à savoir la phase d'alerte, la phase d'accident et la phase post-accidentelle, et d'examiner durant ces trois phases le rôle joué tant par les autorités nationales ou locales que par l'exploitant nucléaire et son assureur, ainsi que la nature et la forme de leurs interventions respectives.

En outre, dans le cadre de la préparation de l'atelier, il a été décidé d'inviter certains pays susceptibles d'être au premier chef affectés par un accident nucléaire survenant dans le nord de la France, à savoir l'Allemagne, la Belgique, l'Irlande, le Luxembourg, les Pays-Bas, le Royaume-Uni et la Suisse, à jouer un rôle actif au cours de l'atelier et de leur proposer de décrire la manière dont ils auraient fait face à un accident nucléaire survenant à Gravelines. Le choix de ces pays s'est opéré en tenant compte tant d'un critère géographique que d'un critère de représentativité des pays dotés ou non de programmes électronucléaires, de même que des pays Parties ou non aux régimes internationaux de

FOREWORD

The Workshop on the Indemnification of Nuclear Damage in the Event of a Nuclear Accident, which was held in Paris, France, from 26 to 28 November 2001, was organised by the OECD Nuclear Energy Agency in close co-operation with the French authorities. This workshop was a continuation of the International Nuclear Emergency Exercise INEX 2000, which was based on the simulation of a nuclear accident in May 2001 at the Gravelines nuclear power plant in France. The integration of third party liability aspects into an essentially technical exercise like this stemmed from the interest of those involved in the nuclear sector to put to the test the applicable nuclear third party liability and indemnification mechanisms, both in the accident country and in neighbouring countries liable to be affected by this accident. Within the more limited context of the Contracting States to the Paris Convention on Third Party Liability in the Field of Nuclear Energy and the Brussels Supplementary Convention, and bearing in mind the ongoing revision of these instruments, it was also deemed interesting to examine the manner in which these conventions could apply in this particular scenario, notably in relation to the international mechanisms of compensation for nuclear damage which they establish.

As a general rule, national or international nuclear emergency plans place emphasis on the management of the accident both inside the installation and off-site, along with the actions taken by the various competent bodies to control or minimise its consequences, without really taking into account the particular requirements of persons who find themselves suddenly in an emergency situation. In a similar vein, studies focusing on the international nuclear third party liability regime usually take a global perspective and leave little room for the treatment of individual cases. The albeit welcome dearth of practical experience in Western countries in providing compensation for accidents of nuclear origin has, however, meant that public authorities are not always fully conscious of the importance of this question which must be dealt with in as practical a manner as possible. The NEA workshop represented a first step in this direction.

In order to cover all the legal and practical questions that could arise during the management of the consequences of a nuclear accident with regard to third party liability for damage, it was decided to organise the workshop according to three main stages: the alert phase, the accident phase and the post-accident phase; and to examine during these three stages the various roles played by local and national authorities, the nuclear operator and his insurer, as well as the nature and form of their respective actions.

Furthermore, during the preparation of the workshop, it was decided to invite certain countries, liable to be most affected by a nuclear accident in the north of France, i.e. Belgium, Germany, Ireland, Luxembourg, the Netherlands, Switzerland and the United Kingdom, to play an active role in the workshop and to describe the manner in which they would have reacted in their country to a nuclear accident at Gravelines. This choice of countries was based on both geographical criteria and on the inclusion of countries with and without electro-nuclear programmes, countries which are members and non-members of the international nuclear third party liability regimes, and states which have opted for both limited and unlimited third party liability regimes, in order to ensure as representative a selection

responsabilité civile nucléaire et des pays ayant un régime de responsabilité civile limitée ou au contraire illimitée, afin d'avoir un échantillon aussi représentatif que possible des systèmes en vigueur. Les participants à l'atelier étaient bien entendu encouragés à s'exprimer également sur le sujet et un certain nombre d'entre eux ont à cet égard accepté de prolonger leur contribution en répondant au questionnaire détaillé diffusé préalablement à l'atelier par le Secrétariat de l'AEN et portant sur les moyens prévus pour mettre en œuvre les régimes nationaux et internationaux d'indemnisation des dommages nucléaires.

Sur la base des réponses à ce questionnaire, complétées par les échanges d'information et les débats au cours des deux journées de l'atelier, une analyse a été préparée par le Secrétariat de l'AEN en vue d'identifier les similitudes et les différences existant entre les pays étudiés. Un avertissement s'impose toutefois à cet égard. Au vu du dépouillement des réponses, certaines questions posées dans le questionnaire ont pu rester sans réponse de la part des autorités de tel ou tel pays. Il ne faudrait pas en déduire nécessairement que l'absence de réponse signifie que rien n'est prévu dans le pays en question sur ce point particulier.

À titre d'illustration des procédures mises en place pour indemniser les victimes de dommages résultant d'un accident nucléaire, deux intervenants, à savoir M. Werner Eich du Bureau fédéral allemand de l'administration et le Maire de Tokai-mura au Japon, M. Tatsuya Murakami, ont été invités à partager leur expérience en la matière. M. Eich s'est plus précisément attaché à décrire la manière dont son institution a traité les demandes en réparation consécutives à l'accident de Tchernobyl en 1986 tandis que M. Murakami a décrit le rôle joué par les autorités municipales à la suite de l'accident survenu à Tokai-mura en 1999. Lors de la préparation du présent compte rendu, la délégation irlandaise a en outre soumis une contribution analysant, entre autres, la manière dont les ressortissants irlandais auraient pu réclamer réparation des dommages résultant d'un accident nucléaire du type de celui simulé à Gravelines.

En confrontant ces différentes expériences et sur la base de l'analyse et des réponses au questionnaire, on ne peut qu'être frappé par la diversité des solutions adoptées ou envisagées pour faire face à tel ou tel aspect d'une situation d'urgence nucléaire. Ce manque d'uniformité n'est pas critiquable en soi et il convient de tenir compte du contexte national, du cadre juridique, du mode d'organisation des instances publiques ou privées qui, à l'évidence, sont variables d'un pays à l'autre. Aussi longtemps que les effets d'un accident demeurent confinés dans le pays d'origine, ces différences ne portent pas à conséquence. Il peut ne pas en être de même lorsque, comme cela serait fort vraisemblable en Europe, les effets d'un accident nucléaire ignorent les frontières et que plusieurs pays doivent simultanément affronter les conséquences humaines et matérielles d'un tel accident.

C'est la raison pour laquelle cette confrontation inédite des réglementations et pratiques nationales réalisée au cours de cet atelier pourrait alimenter une réflexion sur l'optimisation des moyens et des procédures à activer dans de telles circonstances et, à plus long terme, sur leur harmonisation. Par ailleurs, les aspects de responsabilité civile nucléaire devraient à l'avenir être intégrés sur une base régulière aux exercices internationaux d'urgence nucléaire organisés sous l'égide de l'AEN.

Patrick Reyners

as possible of all the systems applied. The participants at the workshop were of course also encouraged to provide information on the subject and a number of them accepted to complete their contribution by responding to the questionnaire circulated in advance of the workshop by the NEA Secretariat and based on the mechanisms in place to implement the national and international regimes governing the indemnification of nuclear damage.

On the basis of the responses provided to this questionnaire and the exchange of information and discussion which took place during the two days of the workshop, an analysis has been prepared by the NEA Secretariat which attempts to identify similar traits or differences, as the case may be, between the countries considered. It should be pointed out, however, that the authorities of certain countries did not always provide a response to all of the questions posed. Readers should therefore not assume that where a country has not replied to a question, there are no measures in place in that country on the particular issue.

By way of illustration of the procedures established to compensate victims of damage resulting from a nuclear accident, two special guests, Mr. Werner Eich from the German Federal Office of Administration and the Mayor of Tokai-mura in Japan, Mr. Tatsuya Murakami, were invited to share their experience in this respect. Mr. Eich described in particular the manner in which his institution dealt with the compensation claims resulting from the Chernobyl accident in 1986 and Mr. Murakami outlined the role played by the municipal authorities following the Tokai-mura accident in 1999. During the preparation of these proceedings, the Irish delegation also submitted a written contribution analysing, in particular, the manner in which Irish victims could have claimed compensation of damage resulting from a nuclear accident such as the one simulated at Gravelines.

Comparing these different experiences and based on the comparative analysis and the responses to the questionnaire, a striking diversity may be noted of solutions adopted or envisaged to address various aspects of a nuclear emergency situation. This lack of uniformity should not necessarily be criticised and it is essential to take into account the national context, legal framework, form of organisation of public and private bodies, which, evidently, are very different from one country to the next. As long as the consequences of an accident remain confined to the country of origin, these differences are not likely to have negative repercussions. This would no longer be the case if, as would likely be the case in Europe, the effects of a nuclear accident went beyond national boundaries and several countries would thus be faced simultaneously with the human and material consequences of such an accident.

The comparison of national regulations and practices which took place during the workshop was the first of its kind. For this reason, it could provide food for thought on the optimisation of methods and procedures to follow in such circumstances and, in the longer term, on their harmonisation. It has also unveiled the necessity for nuclear third party liability aspects to be incorporated on a regular basis into future international nuclear emergency exercises organised under NEA auspices.

Patrick Reyners

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PROGRAMME DÉFINITIF

Séance I

lundi 26 novembre

I. Phase d'alerte

- 11h45 **Identification** (1) des organismes nationaux ou locaux compétents pour prendre des **mesures d'urgence** en matière de prévention des dommages nucléaires et (2) **coordination** de ces mesures avec les pays voisins
- 12h15 À qui incombe-t-il de couvrir le **coût de ces mesures préventives** (exploitant, État, administrations locale...) ?
- 12h30 Questions – Discussion
- 13h00 Déjeuner
- 14h00 Existe-t-il une **législation/réglementation nationale** régissant ces questions ainsi que des normes déterminant les seuils de radioactivité à partir desquels de telles mesures doivent être prises ?
- 14h20 Organisation de la **diffusion de l'information** (y compris au public) sur les mesures d'urgence (y compris les mesures préventives) au sein du pays de l'accident et entre ce pays et les pays voisins affectés, à différents niveaux
- 14h40 Conditions de **mobilisation de l'assureur** de l'exploitant responsable et présence/mode de représentation de cet assureur dans les pays voisins affectés
- 15h00 Questions – Discussion

FINAL PROGRAMME

Session I

Monday 26 November

I. Alert Phase

- 11.45 **Identification** of (1) the national and local bodies responsible for taking emergency measures to prevent nuclear damage and (2) **co-ordination** of these measures with neighbouring countries
- 12.15 With whom does the **cost for these preventive measures** lie? (operator, State, local administration...)?
- 12.30 Questions – Discussion
- 13.00 Lunch
- 14.00 Is there any **national legislation or regulations** governing these questions, or standards for the thresholds of radioactivity beyond which such measures must be taken?
- 14.20 Organisation of the **dissemination of information** (including to the public) on emergency measures (including preventive measures) within the accident country itself and between this country and affected neighbouring countries, at different levels
- 14.40 How is the insurer of the liable nuclear operator mobilised, and in what manner is this insurer present or represented in affected neighbouring countries?
- 15.00 Questions – Discussion

Séance II

lundi 26 novembre

II. Phase d'accident

- 16h00 Mode et limites de l'intervention de l'assureur sur le terrain :
- dans le pays de l'accident ;
 - dans les pays voisins « affectés »
- 16h30 Aides de premiers secours :
- information/accès aux aides de premiers secours ;
 - modalités/montants de ces aides de premiers secours ; par qui sont-elles allouées ?
 - critères d'accès à ces aides de premiers secours
- 17h00 Questions – Discussion
- 18h00 Cocktail au Château de la Muette offert par EDF

Séance III

mardi 27 novembre

III. Phase post-accidentelle

- 09h00 **Diffusion de l'information** sur le régime d'indemnisation disponible en ce qui concerne les dommages nucléaires et rôle de l'assureur et des autorités publiques dans ce domaine :
- dans le pays de l'accident ;
 - dans les pays voisins affectés
- 10h00 Questions – Discussion
- 11h30 La réparation des dommages en Allemagne à la suite de l'accident de Tchernobyl
- 12h00 Questions – Discussion
- 12h30 Déjeuner

Session II

Monday 26 November

II. Accident Phase

- 16.00 Method and limits of the insurer's intervention in the field:
- in the accident state ;
 - in the affected neighbouring countries
- 16.30 Emergency assistance payments:
- information on/access to such emergency payments;
 - manner of payment/amounts of these payments, provided by whom?
 - criteria upon which such payments are granted
- 17.00 Questions – Discussion
- 18.00 Reception at Château de la Muette hosted by EDF

Session III

Tuesday 27 November

III. Post-Accidental Phase

- 09.00 **Dissemination of information** on the regime of compensation available for nuclear damage and the role of the insurer and the public authorities in this field:
- in the accident state;
 - in the affected neighbouring countries
- 10.00 Questions – Discussion
- 11.30 The compensation of damage in Germany following the Chernobyl accident
- 12.00 Questions – Discussion
- 12.30 Lunch

- 14h00 Gestion des demandes d'indemnisation :
- qui est chargé de la gestion de ces demandes ?
 - modalités du recensement des victimes/évaluation du dommage dans le pays de l'accident et des pays tiers ;
 - existence de procédures spéciales pour estimer le dommage ? Appel à expertise aux niveaux national et international requis ?
 - prise en charge du coût de gestion des demandes en réparation :
 - (i) alimentée par les fonds de l'exploitant
 - (ii) alimentée par des fonds publics
- 14h30 Le dommage nucléaire indemnisable :
- qui détermine les types de dommages indemnifiables ?
 - en dehors des dommages directs aux personnes et aux biens, est-il prévu dans les divers pays une réparation pour :
 - les dommages indirects (perte économique pure) ?
 - les dommages à l'environnement ?
 - le coût des mesures préventives ?
 - d'autres cas particuliers ?
- 15h00 Questions liées à la procédure à suivre :
- la démarche à suivre pour demander réparation ;
 - délai de prescription ? système de priorité ?
 - quelles sont les modalités pratiques d'indemnisation ?
- 15h30 Questions – Discussion
- 16h30 Le suivi, dans la durée, des dossiers à la charge de l'assureur :
- existence de conventions de gestion de sinistres entre assureurs ?
 - transmission d'informations entre établissements de soins et l'assureur
 - suivi des dossiers
- 17h00 Questions – Discussion
- 17h20 Interface avec le régime d'indemnisation des travailleurs :
- la démarche à suivre pour le travailleur ayant subi un dommage
 - droit de recours de l'État contre l'exploitant pour demander le remboursement du montant de la réparation versé au titre de la réparation d'un accident du travail ?
 - en cas de dépassement du plafond de l'indemnisation pour accident du travail ?
- 17h45 Questions – Discussion

- 14.00 Compensation claims handling:
- who is responsible for handling these claims?
 - how are the inventories of victims/evaluation of damage carried out in the accident state and in third countries?
 - are there any special procedures to estimate damage? Are experts at national and international level required to intervene?
 - who is liable for the claims handling costs:
 - (i) relating to the operator's insurance cover?
 - (ii) relating to public funds?
- 14.30 Heads of damage subject to compensation:
- who decides what damage is subject to compensation?
 - aside from direct damage to persons and property, is compensation provided in different countries for:
 - indirect damage (pure economic loss)?
 - environmental damage?
 - costs of preventive measures?
 - other particular cases?
- 15.00 Procedure-related questions:
- how does one claim compensation?
 - time limit for the introduction of claims? priority system in the administration of claims?
 - how is compensation paid in practical terms?
- 15.30 Questions – Discussion
- 16.30 Administration of the compensation claims over time by the insurer:
- existence of agreements between insurers on management of accidents?
 - transfer of information between health establishments and the insurer
 - management of claims
- 17.00 Questions – Discussion
- 17.20 Interface with the worker compensation regime:
- how should a worker make a claim for damage suffered?
 - right of recourse of the State against the operator to reimburse the compensation paid for a work-related accident?
 - if the maximum amount of work-related accident compensation is paid, can workers obtain the difference from the operator?
- 17.45 Questions – Discussion

Séance III (suite)

mercredi 28 novembre

III. Phase post-accidentelle (suite)

- 09h00 L'exercice des recours par les victimes :
- action directe auprès de l'assureur ?
 - arrangements pour faciliter l'accès des victimes à une juridiction étrangère ?
 - procédure spéciale mise en place par le Gouvernement ?
 - possibilité de règlement à l'amiable ?
 - action auprès du tribunal compétent (lequel ?) – procédure de *Class Action* disponible ?
 - exécution des jugements au niveau des pays affectés
- 10h00 Questions – Discussion
- 11h00 La réparation des dommages à la suite de l'accident de Tokai-mura
- 12h00 Questions – Discussion
- 12h30 Déjeuner
- 14h00 Activation du mécanisme de la Convention Complémentaire de Bruxelles :
- communication entre l'État de l'accident et les autres Parties Contractantes
 - continuité et uniformité dans la gestion des demandes pour les trois tranches
 - problèmes susceptibles de résulter d'un niveau insuffisant d'harmonisation dans les critères de qualification (évaluation du dommage nucléaire)
 - modalités pour le règlement des contributions à la tranche internationale : calcul des montants ; avance des fonds internationaux par l'État de l'accident ?
 - question des intérêts et dépens concernant les fonds publics
- 16h00 Questions – Discussion
- 17h15 Conclusions
- 18h00 Clôture de l'Atelier

Session III (continued)

Wednesday 28 November

III. Post-Accidental Phase (continued)

- 09.00 How victims can exercise their claims:
- direct claim against the insurer?
 - arrangements to facilitate victims' access to a foreign tribunal?
 - does the Government establish a special procedure in this field?
 - possibility of amicable settlement?
 - case before a tribunal (which one?) – possibility of class actions?
 - enforcement of judgements in affected countries
- 10.00 Questions – Discussion
- 11.00 The compensation of damage following the Tokai-mura accident
- 12.00 Questions – Discussion
- 12.30 Lunch
- 14.00 Activating the Brussels Supplementary Convention mechanism:
- transfer of information between the accident State and the other Contracting Parties
 - continuity and uniformity in the compensation claims handling for the three tiers
 - problems which may result from an insufficient degree of harmonisation in the qualification criteria (evaluation of the nuclear damage)
 - methods of payment of the contributions to the international tier: calculation of amounts; need for the accident State to “advance” the funds pending reimbursement by the other Contracting Parties
 - questions concerning interest and costs in relation to public funds
- 16.00 Questions – Discussion
- 17.15 Conclusions
- 18.00 Closure of the Workshop

NUCLEAR EMERGENCY PREPAREDNESS AND MANAGEMENT THE INTERNATIONAL NUCLEAR EMERGENCY EXERCISE INEX 2000

by Mr. Stefan Mundigl*

NEA Programme on Nuclear Emergency Preparedness and Management

The OECD Nuclear Energy Agency (NEA) has a long tradition of expertise in the field of nuclear emergency policy, planning, preparedness, and management. The NEA offers its member states, through a standing programme, unbiased assistance in the nuclear preparedness arena, with a view to generating positive influence towards improved nuclear preparedness strategies and nuclear emergency response at international level, including the development and exchange of new ideas and the identification of concerted responses to joint concerns.

The NEA Working Party on Nuclear Emergency Matters, a group of national experts in emergency response, acts as a think-tank in the field of nuclear emergency planning, preparedness and management by identifying areas which can usefully be improved, by developing and testing innovative ideas, approaches and concepts, and by defining follow-up strategies. In addition, the group initiates, develops, prepares, and organises International Nuclear Emergency Exercises (INEX).

With the initiation of the first international nuclear emergency exercise INEX 1, performed as a table-top exercise in 1993, the international community tested, for the first time, approaches and policies in place to manage a nuclear or radiological emergency. INEX 1 with its related workshops led to a wealth of lessons learned and to an improvement in nuclear emergency management.

The INEX 2 exercise series, initiated by the NEA and performed between 1996 and 1999, established an international nuclear emergency “exercise culture” leading to a clear improvement of the international aspects of nuclear emergency preparedness and management. INEX 2 was a series of four command post exercises based on national nuclear emergency exercises in Switzerland, Finland, Hungary and Canada. Simulated accidents at nuclear power plants were used to test existing procedures in emergency response and management, and to analyse local, regional, national and international emergency plans under realistic conditions. In addition, the exercises allowed the participating countries to gain experience using new concepts and tools.

The most significant result of INEX 2 and a major step forward in nuclear emergency management was the development of a new communication and information exchange strategy, which is currently implemented by various NEA member countries as well as by the international community in general. The objective of this new strategy is to assist the decision-maker by improving the selection of the data transmitted, by encouraging the transmission and reception of such data and

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information using modern communication methods, e.g. secure world wide web technologies, and by defining emergency monitoring and modelling needs.

To test the validity and usefulness of the newly-developed strategy, the NEA proposed to organise an international nuclear emergency exercise, INEX 2000, similar in scope to the INEX 2 exercises. In addition, the NEA suggested to include, for the first time, questions regarding the implementation of the international third party liability regime and its implementing legislation following a nuclear emergency. The INEX 2000 exercise was designed, therefore, to serve as a bridging exercise between the INEX 2 series and the next generation of international nuclear emergency exercise programmes at the NEA – INEX 3.

Objectives of the International Nuclear Emergency Exercise – INEX 2000

The NEA developed, together with its member countries, the INEX 2000 objectives in the tradition of the INEX 1 and INEX 2 series, offering member countries an opportunity to improve their national emergency preparedness and management tools.

The objectives of INEX 2000 were:

- to test features of the “Monitoring and Data Management Strategies for Nuclear Emergencies” such as:
 - the effectiveness of the developed data matrix;
 - the effectiveness of proposed communication strategies employing new technologies;
- to test the co-ordination of media information between various participants;
- to identify how participants incorporated the lessons learned from INEX 2 exercises; and
- to test the mechanisms for the implementation of the international conventions on nuclear third party liability.

France offered to host this international nuclear emergency exercise jointly performed by several international organisations during a national nuclear emergency exercise based on a simulated accident at the Gravelines nuclear power plant.

In practice, INEX 2000 was performed in two phases. During the first phase, an INEX 2 type command post exercise was held at Gravelines on 22-23 May 2001 to test objectives similar to those identified for the INEX 2 exercises but also adding features of the new NEA Monitoring and Data Management Strategy for Nuclear Emergencies. The second phase of INEX 2000 aimed to test the mechanisms for the implementation of the international conventions on nuclear third party liability, and took the form of an NEA *Workshop on the Indemnification of Damage in the Event of a Nuclear Accident*, held in Paris from 26 to 28 November 2001.

The INEX 2000 Command-Post Exercise

This part of the exercise took place on 22-23 May 2001 based on a French national nuclear emergency exercise at the Gravelines nuclear power plant. This plant is located in the north of France not far from the Belgian border. The exercise was organised, similar to the four INEX 2 exercises, as a

command-post real-time notification and communication exercise, dealing with the first 24 hours of a nuclear emergency.

The scenario for the exercise was prepared by *Électricité de France* (EDF) together with the French Institute for Protection and Nuclear Safety (*Institut de protection et de sûreté nucléaire – IPSN*).¹ The accident process was a slow one, with radioactive releases only commencing about ten hours after the initial event.

Details of the accident scenario are provided in Appendix of the vade mecum which is reproduced in Annex II to these Proceedings.

As the simulated accident at Gravelines developed, the threat of a potential release of radioactive substances led to the decision, at the level of the local authority (the Prefect) to evacuate a population of 8 000 inhabitants downwind of the release in the municipality of Dunkirk.

As the meteorological conditions were characterised by a stable wind coming from the north-east, it was not necessary at all during the exercise to take decisions on short-term countermeasures in neighbouring countries.

Evaluation of the command-post part of INEX 2000

For the evaluation of the exercise, the NEA developed a questionnaire to be answered by participating countries. Twenty-three countries and one international organisation responded to the questionnaire. A detailed analysis of the exercise also took place during an INEX 2000 follow-up meeting, which was held on 16 and 17 January 2002 at OECD Headquarters in Paris.

Many countries including the accident host country, France, have made great efforts to develop and implement modern communication techniques for the exchange of emergency information, nationally and internationally. During the INEX 2000 exercise, the broadcasting of accident information via the web allowed simultaneous access for all exercise participants. Many countries used e-mail and web-based information tools, which considerably improved information management and exchange, including information retrieval, processing, and analysis, although some problems were reported and further development of these tools is needed. The selection of data for critical decision-making is improving but could also benefit from improvement.

INEX 2000 taught us many lessons, which will help to further enhance the implementation of new technologies in many countries:

- Most participating countries underlined the need for information exchange using new technologies.
- The use of web technology offers more than just the posting of retyped fax forms.
- The potential of internet technology offers additional features which would be beneficial for emergency communication and information exchange.
- Stability, safety and security of net communications still leave room for improvement and require consolidation.

1. This Institute has since merged with the Office for Protection against Ionising Radiation (*Office de protection contre les rayonnements ionisants – OPRI*) to form the Institute for Radiation Protection and Nuclear Safety (*Institut de radioprotection et de sûreté nucléaire – IRSN*).

With regard to public information and the media, the INEX 2 series revealed that working together with the media as partners, from the very beginning of the exercises, is essential in order to satisfy media and public information demands. Co-ordination of media information between various participants, countries, and international organisations during nuclear emergencies is still regarded as an important issue which requires improvement. INEX 2000 has, once again, demonstrated that the importance of issuing co-ordinated press releases is still underestimated by the staff responsible, in spite of the fact that conflicting information can cause confusion amongst the population and lead to a loss of confidence in the decisions made by the authorities. Any loss of confidence can impair the effectiveness of countermeasures.

Regarding emergency planning, preparedness, and management, many countries took the opportunity of the INEX 2000 exercise to successfully test their national plans, procedures, and organisations which have been updated in the light of experience gained during the INEX 2 series. A few countries tested, in addition, recent arrangements between their national contact points and national warning points as well as liaison with the IAEA.

Regarding exercise preparation, conduct and evaluation, INEX 2 demonstrated the need for better documentation on exercise planning, the use of real systems during the exercise and a regular evaluation of progress in the implementation of lessons learned. During INEX 2000, countries tested improved communication procedures with positive results. Some countries took advantage of the 24-hour duration of INEX 2000 to test procedures for shift changes and to update emergency plans accordingly. Many countries have confirmed that they have made progress in this respect since INEX 2.

Future international nuclear emergency exercises INEX 3: assessment and decision-making mechanisms after a serious contamination

The NEA is currently working on the next generation of International Nuclear Emergency Exercises, the INEX 3 exercise series. This new series will focus on decision-making mechanisms in the medium and long term after a nuclear or radiological accident with serious contamination. The exercises will address various aspects of the appropriate management of a severe contamination situation after an accident, such as agricultural countermeasures, food restrictions, societal aspects, psychological damage, compensation schemes, decisions on “soft/light” countermeasures, trade and travel, and harmonisation of response.

The exercise programme is likely to include a series of five to six regional exercises each involving two, or a few, neighbouring countries. The exercise scenario would start with the identification of non-trivial contamination in an accident state, which would affect the neighbouring countries in a similar way. The level of contamination should be such that relevant authorities would be forced to decide on medium and long term countermeasures. The exercise would then focus on the decision-making mechanisms in the affected countries, on the similarities and differences in the decisions taken, and on information exchange between the affected countries themselves, and between the affected countries and other countries/the international community.

The discussion of issues related to the indemnification of third party liability, especially in the international context, would imply the participation of nuclear liability experts from the NEA Nuclear Law Committee.

References

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PRÉPARATION ET GESTION DES SITUATIONS D'URGENCE NUCLÉAIRE L'EXERCICE INTERNATIONAL D'URGENCE NUCLÉAIRE INEX 2000

par M. Stefan Mundigl*

Programme de l'AEN sur la préparation et la gestion des situations d'urgence nucléaire

L'Agence de l'OCDE pour l'énergie nucléaire (AEN) a une longue tradition d'expertise dans le domaine de la politique, de la planification, de la préparation et de la gestion des situations d'urgence nucléaire. L'AEN offre à ses États Membres, au moyen d'un programme permanent, une assistance impartiale dans le domaine de la préparation nucléaire en vue d'exercer une influence positive sur l'amélioration des stratégies de préparation nucléaire et de l'intervention en cas de situation d'urgence nucléaire au niveau international, notamment en ce qui concerne les développements et échanges de nouvelles idées et l'identification de réponses concertées aux préoccupations communes.

Le Groupe de travail de l'AEN sur les questions d'urgence nucléaire, un groupe d'experts nationaux sur l'intervention aux situations d'urgence, agit comme un cadre de réflexion dans le domaine de la planification, de la préparation et de la gestion des situations d'urgence nucléaire en identifiant les domaines qui peuvent être utilement améliorés, en développant et en mettant à l'épreuve des idées, des approches et des concepts innovants, et en définissant les stratégies de suivi. De plus, le Groupe lance, développe, prépare et organise les exercices internationaux d'urgence nucléaire (INEX).

À travers la mise sur pied du premier exercice international d'urgence nucléaire INEX 1, mené comme une simulation théorique en 1993, la communauté internationale a mis à l'épreuve, pour la première fois, les approches et politiques en place pour gérer une situation d'urgence nucléaire ou radiologique. INEX 1, avec ses ateliers connexes, a fourni nombre d'enseignements et a permis d'améliorer la gestion des situations d'urgence nucléaire.

La série d'exercices INEX 2, lancés à l'initiative de l'AEN et accomplis entre 1996 et 1999, a établi une « culture d'exercice » internationale des situations d'urgence nucléaire menant à une nette amélioration des aspects internationaux de la préparation et la gestion des situations d'urgence nucléaire. INEX 2 a consisté en une série de quatre exercices aux postes de commandement fondés sur des exercices nationaux d'urgence nucléaire en Suisse, en Finlande, en Hongrie et au Canada. Les accidents simulés dans des centrales nucléaires ont été utilisés pour tester les procédures existantes d'intervention en cas d'urgence et de gestion de la situation et pour analyser les plans d'intervention d'urgence locaux, régionaux, nationaux et internationaux dans des conditions réalistes. En outre, les exercices ont permis aux pays participants d'acquérir de l'expérience en utilisant de nouveaux concepts et outils.

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Le résultat le plus important d'INEX 2, une avancée majeure dans la gestion des situations d'urgence nucléaire, a été le développement d'une nouvelle stratégie de communication et d'information qui est actuellement mise en œuvre par divers pays Membres de l'AEN ainsi que par la communauté internationale dans son ensemble. Cette nouvelle stratégie vise à aider les décideurs à améliorer la sélection des données transmises en encourageant la transmission et la réception de ces données et des informations, en utilisant des méthodes modernes de communication, par exemple les technologies sécurisées du web, et en définissant les besoins de contrôle et de modélisation des situations d'urgence.

Afin de tester la validité et l'utilité de la stratégie nouvellement développée, l'AEN a proposé d'organiser un exercice international d'urgence nucléaire, INEX 2000, similaire dans sa portée aux exercices INEX 2. De plus, l'AEN a suggéré d'inclure, pour la première fois, les questions concernant la mise en œuvre du régime international de responsabilité civile et sa législation d'application à la suite de la situation d'urgence nucléaire. L'exercice INEX 2000 a été par conséquent conçu pour servir d'exercice relais entre la série INEX 2 et la prochaine génération de programmes d'exercices internationaux d'urgence nucléaire à l'AEN – INEX 3.

Objectifs de l'Exercice international d'urgence nucléaire – INEX 2000

L'AEN a développé, conjointement avec ses pays Membres, les objectifs d'INEX 2000 dans la tradition des séries INEX 1 et INEX 2, offrant aux pays membres une occasion d'améliorer leurs outils nationaux de préparation et de gestion des situations d'urgence.

INEX 2000 visait :

- à tester les orientations de la « Stratégie de surveillance et de gestion de données dans les urgences nucléaires » tel que :
 - l'efficacité des matrices de données développées à cette occasion ;
 - l'efficacité des stratégies de communication proposées employant les nouvelles technologies ;
- à tester la coordination des informations médiatiques entre les différents participants ;
- à identifier la manière dont les participants ont intégré les enseignements tirés des exercices INEX 2 ;
- à tester les mécanismes de mise en œuvre des conventions internationales sur la responsabilité civile nucléaire.

La France a proposé d'accueillir cet exercice international d'urgence nucléaire, conjointement mené par plusieurs organisations internationales, en l'intégrant à un exercice national d'urgence nucléaire sur la base d'un accident simulé à la centrale nucléaire de Gravelines.

En pratique, INEX 2000 a été réalisé en deux phases. Durant la première phase, un exercice au poste de commandement du type d'INEX 2 a eu lieu à Gravelines les 22 et 23 mai 2001, afin de mettre à l'épreuve les objectifs déjà identifiés pour les exercices INEX 2 mais également les spécificités supplémentaires de la nouvelle Stratégie de surveillance et de gestion de données dans les urgences nucléaires de l'AEN. La deuxième phase d'INEX 2000 visait à tester les mécanismes de mise en

œuvre des conventions internationales sur la responsabilité civile nucléaire et a pris la forme d'un *Atelier de l'AEN sur l'indemnisation des dommages en cas d'accident nucléaire*, qui s'est tenu à Paris du 26 au 28 novembre 2001.

L'exercice INEX 2000 au poste de commandement

Cette partie de l'exercice s'est déroulée les 22 et 23 mai 2001, sur la base d'un exercice national français d'urgence nucléaire à la centrale nucléaire de Gravelines. Cette centrale est située dans le nord de la France non loin de la frontière belge. L'exercice a été organisé, de même que les quatre exercices INEX 2, comme un exercice de notification et de communication en temps réel au poste de commandement, portant sur les premières 24 heures d'une situation d'urgence nucléaire.

Le scénario de l'exercice a été préparé par Électricité de France (EDF) conjointement avec l'Institut français de protection et de sûreté nucléaire (IPSN)¹. Le déroulement de l'accident a été lent, les rejets radioactifs ne commençant qu'environ dix heures après l'événement initial.

Des détails sur le scénario de l'accident figure à l'appendice du vade-mecum qui est reproduit à l'annexe II du présent Compte-rendu.

Au vu du développement de l'accident simulé à Gravelines et compte tenu de la menace de rejets potentiels de substances radioactives, la décision a été prise au niveau de l'autorité locale (à savoir le Préfet) d'évacuer une population de 8 000 habitants de la municipalité de Dunkerque se trouvant sous le vent.

Le fait que les conditions météorologiques se caractérisaient par un vent stable venant du nord-est, a eu pour conséquence qu'il ne s'est pas avéré nécessaire, durant toute la durée de l'exercice, de prendre des décisions sur le déclenchement de mesures à court-terme dans les pays voisins.

Évaluation de la partie d'INEX 2000 au poste de commandement

En vue de l'évaluation de l'exercice, l'AEN a élaboré un questionnaire devant être rempli par les pays participants. Vingt-trois pays et une organisation internationale y ont répondu. Une analyse détaillée de l'exercice a également eu lieu lors de la réunion de suivi d'INEX 2000 qui s'est tenue les 16 et 17 janvier 2000, au siège de l'OCDE à Paris.

De nombreux pays, y compris la France, pays hôte de l'accident, ont fait de grands efforts pour développer et mettre en œuvre des techniques modernes de communication pour l'échange d'informations sur la situation d'urgence, aux niveaux national et international. Au cours de l'exercice INEX 2000, la diffusion des informations sur l'accident via le web a offert à tous les participants à l'exercice un accès simultané à ces informations. Beaucoup de pays ont utilisé l'e-mail ou des outils d'informations liés au web, ce qui a considérablement amélioré la gestion et l'échange des informations, notamment la réception, le traitement et l'analyse des informations, bien que certains problèmes aient été rapportés et qu'un développement plus avancé de ces moyens s'avère nécessaire. La sélection des données nécessaires à une prise de décision critique s'améliore mais pourrait encore bénéficier d'améliorations.

1. Cet Institut a depuis fusionné avec l'Office de protection contre les rayonnements ionisants (OPRI) pour former l'Institut de radioprotection et de sûreté nucléaire (IRSN).

De nombreux enseignements ont été tirés d'INEX 2000, lesquels nous aideront à renforcer davantage la mise en œuvre des nouvelles technologies dans de nombreux pays :

- La plupart des pays participants ont souligné le besoin d'un échange d'informations au moyen des nouvelles technologies.
- L'utilisation de la technologie web offre plus d'avantages que la simple mise en ligne de formulaires de fax retapés.
- Le potentiel de la technologie internet offre d'autres particularités qui seraient bénéfiques pour la communication et l'échange d'informations sur la situation d'urgence.
- La stabilité, la sûreté et la sécurité des communications en réseau laissent encore une marge d'amélioration et exigent une consolidation.

S'agissant de l'information du public et des médias, la série INEX 2 a révélé que le travail conjoint avec les médias comme partenaires, depuis le tout début des exercices, est essentiel afin de satisfaire les demandes d'informations de la part des médias et du public. La coordination de l'information des médias entre les divers participants, pays et organisations internationales lors des situations d'urgence nucléaire est considérée comme une question importante nécessitant d'être encore améliorée. INEX 2000 a, une fois de plus, montré que l'importance de publier des communiqués de presse coordonnés est souvent sous-estimée par le personnel responsable, en dépit du fait que des informations contradictoires peuvent engendrer une confusion parmi la population et se traduire par une perte de confiance dans les décisions prises par les autorités. Or, toute perte de confiance peut détériorer l'efficacité des contre-mesures.

S'agissant de la planification, la préparation et la gestion des situations d'urgence, beaucoup de pays ont saisi l'occasion de l'exercice INEX 2000 pour tester avec succès leurs propres plans, procédures et dispositif organisationnel, qui ont été actualisés à la lumière de l'expérience acquise lors de la série INEX 2. Quelques pays ont testé, en outre, les récents arrangements entre leurs points de contact nationaux et les points d'alerte nationaux ainsi que la liaison avec l'AIEA.

Concernant la préparation, la conduite et l'évaluation de l'exercice, INEX 2 a souligné la nécessité d'une meilleure documentation sur la planification de l'exercice, ainsi que de l'utilisation de systèmes réels durant l'exercice et d'une évaluation régulière des progrès dans la mise en œuvre des enseignements retirés de ces exercices. Au cours d'INEX 2000, les pays ont testé avec succès des procédures de communication améliorées. Certains pays ont tiré avantage de la durée de 24 heures d'INEX 2000 pour tester les procédures en cas de changements et actualiser les plans d'urgence en conséquence. Beaucoup de pays ont confirmé qu'ils ont fait des progrès à cet égard depuis INEX 2.

Les exercices internationaux d'urgence nucléaires à venir – INEX 3 : mécanismes d'évaluation et de prise de décision après une contamination sérieuse

L'AEN travaille actuellement sur la prochaine génération d'exercices internationaux d'urgence nucléaire, la série d'exercices INEX 3. Cette nouvelle série se concentrera sur les mécanismes de prise de décision à moyen et à long terme après un accident nucléaire ou radiologique engendrant une contamination importante. Les exercices traiteront les divers aspects d'une gestion adéquate d'une situation de contamination importante après un accident, telle que les contre-mesures agricoles, les restrictions alimentaires, les aspects sociaux, les dommages psychologiques, les mécanismes

d'indemnisation, les décisions relatives aux contre-mesures « souples/légères », le commerce et les déplacements, et l'harmonisation de l'intervention.

Il est probable que le programme de l'exercice comprenne une série de cinq à six exercices régionaux chacun impliquant deux ou plusieurs pays voisins. Le scénario de l'exercice commencerait par l'identification d'une contamination significative dans l'État de l'accident, qui affecterait les pays voisins d'une manière similaire. Le niveau de contamination devrait être tel que les autorités compétentes seraient obligées de décider de contre-mesures à moyen et à long terme. L'exercice se concentrerait sur les mécanismes de prise de décision dans les pays affectés, sur les similitudes et différences dans la prise de décision et sur l'échange d'informations entre les pays affectés et entre les pays affectés et les autres pays/la communauté internationale.

La discussion des questions relatives à l'indemnisation de la responsabilité civile, en particulier dans le contexte international, impliquerait d'autre part la participation des experts sur la responsabilité nucléaire du Comité du droit nucléaire de l'AEN.

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**COMPARATIVE ANALYSIS BASED ON REPLIES TO
QUESTIONNAIRE AND DISCUSSIONS
DURING THE WORKSHOP**

**ANALYSE COMPARATIVE FONDÉE SUR LES RÉPONSES
AU QUESTIONNAIRE ET LES DISCUSSIONS INTERVENUES
AU COURS DE L'ATELIER**

COMPARATIVE ANALYSIS BASED ON THE REPLIES TO THE QUESTIONNAIRE AND ON THE DISCUSSIONS WHICH TOOK PLACE DURING THE WORKSHOP

In order to help participants best prepare for the discussions during the Workshop on the Indemnification of Damage in the Event of a Nuclear Accident, the NEA Secretariat, in co-operation with the French authorities, drafted a questionnaire on the implementation of third party liability and indemnification regimes applicable to nuclear damage resulting from a nuclear emergency situation. This questionnaire was circulated to countries invited to participate in the Workshop to serve as a basis for exchanges.

The representatives of countries which, in light of their geographical situation in relation to the Gravelines nuclear power plant where the nuclear accident was simulated on 22 May 2001, would be most likely to be concerned by the application of liability regimes following a nuclear accident in France having transboundary effects¹ were first of all asked to reply to this questionnaire. A number of other countries, referred to as “unaffected” also accepted to reply to the questionnaire.

On the basis of the replies to the questionnaire (which are reproduced in Annex I to these Proceedings) as well as the discussions which took place during the Workshop, the Secretariat has carried out a comparative study of the different mechanisms governing the emergency alert and management of a nuclear accident and the indemnification of victims in place in the countries participating in the Workshop. This study aims to provide an overview of the replies to the questionnaire. Furthermore, as this analysis is based on the replies to the questionnaire and the discussions which took place during the Workshop, one should therefore not assume that where a country is not expressly included in the Secretariat’s conclusions, that country has not established measures on this subject.

The countries whose alert mechanisms and measures governing indemnification of nuclear damage have been included in this analysis are as follows: Austria, Belgium, Bulgaria, Canada, the Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Korea, Lithuania, Poland, Romania, Spain, Sweden, Switzerland and the United Kingdom, plus on occasion the Netherlands and the United States. The Secretariat thought it useful to provide references in an annex to the national nuclear third party liability legislation of these countries.

1. The countries selected were Belgium, Germany, Ireland, Luxembourg, the Netherlands, Switzerland and the United Kingdom.

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I. ALERT PHASE – Grave and imminent danger of a nuclear accident

1. Decision making

a) Bodies competent to decide which types of preventive measures should be taken and how they should be coordinated with neighbouring countries

With regard to the type of preventive measures to be taken, all of the countries studied which have nuclear power plants on their territory provide for sheltering indoors and evacuation of the population, as well as the distribution of iodine tablets to the exposed public (**Belgium, Bulgaria, Canada, Czech Republic, Finland, Germany, Japan, Korea, Lithuania, Romania, Spain, Sweden, Switzerland, United Kingdom**), although intervention levels differ from one country to another.² Other countermeasures may also exist, such as limiting access to the affected zone (for example in **Canada, Finland, Japan and Luxembourg**) or placing restrictions on the sale of foodstuffs originating in the zone affected by the accident (for example in **Canada, Finland, Lithuania, Luxembourg, Sweden and the United Kingdom**).³

Most of the countries examined (**Belgium, Bulgaria, Denmark, Finland, Ireland, Japan, Lithuania, Luxembourg, Poland, Romania, Spain, Switzerland**) have established an emergency intervention system managed by the State, therefore the countermeasures to protect the public are decided upon by the *national authorities*. The decision-making power is generally vested in the Government (**Bulgaria, Luxembourg, Switzerland**), more specifically the Minister for the Interior (**Finland, Poland,⁴ Spain**), committees placed under governmental authority (**Belgium, Ireland**), or in agencies or commissions entrusted with the management of emergency situations (**Denmark, Japan, Lithuania, Romania, Switzerland**), sometimes on the advice of the authority which regulates and controls the use of nuclear energy⁵ (**Bulgaria, Finland, Ireland, Spain**). **Austria** also has a centralised system; however the authority competent to decide upon countermeasures depends on the type of decision to be taken: the Department for Radiation Protection of the Federal Ministry for

2. For further information on intervention levels, see “Short-term Countermeasures in Case of a Nuclear or Radiological Emergency – Evaluation of the NEA questionnaire on short-term countermeasures of March 2001”, to be published by the OECD Nuclear Energy Agency.

3. See the European Union regulations on this subject, including: Council Regulation (Euratom) No. 3954/87 of 22 December 1987 laying down maximum permitted levels of radioactive contamination of foodstuffs and of feedingstuffs following a nuclear accident or any other case of radiological emergency (OJ No. L 371 of 30/12/1987; p. 11-13); Commission Regulation (Euratom) No. 944/89 of 12 April 1989 laying down maximum permitted levels of radioactive contamination in minor foodstuffs following a nuclear accident or any other case of radiological emergency (OJ No. L 101 of 13/04/1989; p. 17 and 18); Council Regulation (EEC) No. 737/90 of 22 March 1990 on the conditions governing imports of agricultural products originating in third countries following the accident at the Chernobyl nuclear power-station (OJ No. L 082 of 29/03/1990; p. 1-6), as amended by Council Regulation (EC) No. 616/2000 of 20 March 2000 (OJ No. L 075 of 24/03/2000; p. 1 and 2); Council Regulation (EEC) No. 2219/89 of 18 July 1989 on the special conditions for exporting foodstuffs and feedingstuffs following a nuclear accident or any other case of radiological emergency (OJ No. L 211 of 22/07/1989; p. 4 and 5).

4. Jointly with the Minister for Health.

5. In non-nuclear countries, this term is understood to mean the authority which controls radioactive sources.

Agriculture and Forestry, the Environment and Water Management, the Federal Ministry for Social Security or the State Crisis Management section of the Federal Chancellory, in co-operation with the Governors of the Länder.

A certain number of other countries entrust their *local authorities* with the power to decide upon countermeasures. The competent authorities are as follows: in **Canada**, the provinces; in the **Czech Republic**, the head of the local authority of the affected area; in **France**, the Prefect (*Préfet*) of the Department; in **Germany**, the emergency response authorities at Länder level; in **Korea**, the local government; and in **Sweden**, the Country Administrations. The State authorities can however maintain power over co-ordination in some countries (**Canada, Sweden**) or may even retain control over these measures (**Germany**).

In the **United Kingdom**, decision-making on preventive measures is carried out by a strategic co-ordinating group, chaired by the local police and comprised of representatives of both governmental and local authorities, which acts upon the advice of the Government Technical Adviser.

Countermeasures such as prohibition of harvesting and selling foodstuffs or other products, or the limitation of economic activities, are not necessarily decided upon by the same authorities as those responsible for the above-mentioned preventive measures (sheltering, iodine administration, evacuation). Sometimes the local authorities are responsible for this (for example, in **Lithuania**, these decisions are made by the district hygiene centres) but more often than not these questions fall to be decided by national authorities, most notably the authority responsible for foodstuffs (**Finland, Sweden, United Kingdom**) or the Government (**Denmark**,⁶ **Germany**,⁷ **Spain**). It should be noted that in **France**, the authority which is competent for such countermeasures once the alert phase is over is the Prime Minister in co-operation with the different ministerial departments concerned, rather than the Prefect of the Department.

In relation to the co-ordination of measures to be taken, certain countries, in particular the Nordic countries (**Denmark, Finland, Iceland, Norway and Sweden**), but also **Canada** and the **United States**, have concluded formal agreements⁸ with a view to harmonising their intervention criteria in the event of a radiological emergency and have committed themselves to providing each other with information on countermeasures taken in the event of an accident and co-ordinating such measures. Other countries, for example **Japan** and **Luxembourg**, have not formally enacted any provisions to regulate the consultation procedure with neighbouring states.

6. As far as the limitation of economic activities is concerned. The National Institute of Radiation Hygiene (SIS) is competent for questions relating to agricultural produce.

7. The Federal Ministries for Health; the Environment, Nature Conservation and Nuclear Safety; and Consumer Protection, Food and Agriculture may adopt a recommendation to refrain from harvesting or to prohibit the placing of foodstuffs on the market.

8. See the document on joint intervention policy entitled "Nordic Intervention Criteria for Nuclear or Radiological Emergencies – Recommendations" and the Canada-United States Joint Radiological Emergency Response Plan of 27 July 1996. For more information on the latter Plan, please visit the Health Canada website at the following url:
http://www.hc-sc.gc.ca/english/media/releases/2002/2002_13bk13.htm

b) Responsibility for the cost of preventive measures and their possible financial coverage

A distinction should be made between two different types of cost: those which result directly from the preventive measures decided by the competent authorities and which relate to their civil protection obligations vis-à-vis the public, i.e. costs related to evacuation (for example, expenses incurred for logistics, transport, sheltering of the population etc.) and costs which result from the measures taken to minimise the consequences of the accident or indirect costs generated by preventive measures (for example loss of income resulting from evacuation).

The first type of costs lie in some countries with the operator: this is the case in **Finland**,⁹ **Luxembourg**, **Poland**,¹⁰ **Romania**, **Korea**, **Switzerland** and the **United Kingdom**. In this case, it may be necessary that such measures be recommended or ordered by the competent authority (**Finland**, **Korea**, **Luxembourg**, **Switzerland**). In **Luxembourg**, **Poland** and **Switzerland**, the operator is also obliged to indemnify the totality of these costs. In most of the countries studied (with the exception of **Korea**), the cost of these preventive measures is not covered by the nuclear third party liability insurance policy (for example in the **United Kingdom** and in **Switzerland**). For this reason, the operator may be required to take out a financial guarantee separate from the nuclear third party liability policy, to cover these expenses (up to 5 million CHF in **Switzerland**¹¹).

In other countries, the costs of such preventive measures lie with entities other than the operator. In **Austria**,¹² **Belgium**, **Bulgaria**, **Canada**,¹³ **Denmark**, **France**, **Germany**,¹⁴ **Spain** and **Sweden**, these costs are incurred by the public authorities.

Furthermore, in the **Czech Republic** and **Japan**, the cost of these measures is shared between the Government (the Ministry for the Interior in the **Czech Republic**), local authorities in the affected zone and the operator of the nuclear installation. A similar system exists in **Lithuania** where the costs of preventive measures taken within a radius of three kilometres around the Ignalina NPP lie with the operator of this installation up to the equivalent in litas of 5 million USD and the remaining preventive measures are financed by the State.

The costs of measures liable to be taken by the operator or the insurer in order to avoid or minimise the consequences of the accident, or any indirect costs arising from preventive measures, usually lie with the operator (**Austria**, **Belgium**, **Canada**, **Czech Republic**, **France**, **Germany**, **Ireland**, **Japan**, **Korea**, **Luxembourg**, **Poland**, **United Kingdom**). These costs can be covered by the

9. On condition that a nuclear accident has taken place. If this is not the case, these costs lie with the Government.

10. Except where the operator is not liable.

11. Beyond this limit, the costs are financed by the operator from his assets. It should be pointed out that loss of earnings as a result of application of these measures is not covered by the operator.

12. A right of recourse can, however, be exercised against the liable person.

13. A province can, however, reimburse a municipality for costs it incurred in providing assistance to an emergency area. Furthermore, the Federal Government provides basic financial assistance to help provincial governments meet the costs of disasters which exceed that which they might reasonably be expected to bear on their own.

14. Ibid. note 12.

nuclear third party liability insurance policy (**Canada**,¹⁵ **Korea**, **Poland**); if not, then the operator can take out a separate financial guarantee (**France**, **Germany**).

Austria, **Bulgaria** and **Lithuania**¹⁶ have established special national funds to cover this type of expense.

2. Dissemination of information on the accident

a) *Procedure for transmission of information between the various authorities involved at national level*

In most countries considered (**Bulgaria**, **Denmark**, **Finland**, **Germany**, **Japan**, **Lithuania**, **Poland**, **Sweden**, **Switzerland**), the system for disseminating information is a chain-based one: the operator notifies the competent central authorities of the situation, i.e. the authority which regulates and controls the use of nuclear energy (**Finland**, **Germany**, **Poland**) or the body responsible for managing emergency situations (**Denmark**, **Lithuania**, **Switzerland**) or both (**Bulgaria**). These authorities then transmit the information to the other national and local authorities, which in turn notify the alert message and the information received to the businesses and residents in the zone affected by the accident.

However, in some other countries, the first entity with which the operator would be in contact is the local authorities. For example, in **France**, as soon as it learns of an accident, the territorial authority (prefect and maritime prefect) notifies the central authorities, i.e. the Ministers for Industry, the Interior, Health, Defence and Transport, plus the Secretary General of the Interministerial Committee for Nuclear Security (*Secrétaire général du Comité interministériel de sécurité nucléaire – SGCISN*). The central authorities complete this notification by identifying in particular the countries which are physically affected and transmitting this notification to the SGCISN to ensure international notification takes place. The SGCISN is also responsible for informing the President of the Republic and the Prime Minister. In the same vein, in **Canada**, pursuant to the Province of Ontario Nuclear Emergency Plan, the operator of a nuclear installation shall first notify the municipal or provincial authorities specified in the Plan.

Finally, in other countries, the notification is sent simultaneously to the local and national authorities. For example, in the **United Kingdom**, the operator alerts the local police and the national agencies which remain in close contact together thereafter. The Department of Trade and Industry then disseminates information to the other Ministries and to the Dependent States e.g. Jersey, Guernsey, Alderney and the Isle of Man. The Scottish Executive is responsible for emergency situations which take place in Scotland.

In most countries considered, there is also provision for the designation or establishment of structures to ensure the co-ordination of further information exchange between central and local authorities and of measures taken at each intervention level. This exchange of information is generally co-ordinated at central level by the authorities responsible for national emergency management

15. For a description of the elements covered by third party liability insurance, see Canada's response to question (d) under Title I, Section 1 of the compilation of replies to the questionnaire reproduced in Annex I to these Proceedings.

16. The Decommissioning Fund for the Ignalina NPP.

(**Austria, Canada, Ireland**) or the authority which regulates and controls the use of nuclear energy (**Romania**).

Finally, co-ordination may be organised between the various local authorities (**Bulgaria, Canada, Denmark, United Kingdom**). It is worth pointing out there is no provision for any inter-cantonal arrangement in **Switzerland**.

With regard to the means used to disseminate information between national or local authorities, fax remains the most popular choice. Some countries such as **Switzerland** have also established internet sites with restricted access to facilitate communication between competent authorities.

b) Procedure for transmission of information between the various authorities involved at international level

With regard to the notification and communication of information by the accident country to neighbouring countries which are liable to be affected and to the competent international organisations, it is useful to recall that all of the countries covered in this study are party to the 1986 Convention on the Early Notification of a Nuclear Accident and therefore are obliged to notify, directly or through the International Atomic Energy Agency (using its EMERCON system)¹⁷ any nuclear accident to States which are affected or which are liable to be affected by such an accident, and to communicate any relevant information to those States. At European level, a system of information exchange called European Community Urgent Radiological Information Exchange (ECURIE) has also been established to transmit relevant information to Member States via the European Commission. Furthermore, almost all of the countries examined here, with the exception of **Ireland**,¹⁸ **Japan**¹⁹ and **Korea**, have concluded bilateral agreements to ensure the early notification of a nuclear accident and the exchange of information on this subject,²⁰ and have designed contact points for this purpose.

The authority responsible for making this notification in the accident state is usually either the authority which regulates and controls the use of nuclear energy (**Finland**,²¹ **Germany**,²² **Ireland**,²³ **Spain**,²⁴ **United Kingdom**²⁵) or the authority which is responsible for nuclear emergency management (**Canada, France, Switzerland**). These authorities can sometimes be called on to play a separate but

17. This international reporting system was established by the IAEA to assist in the implementation of the 1986 Conventions on the Early Notification of a Nuclear Accident and on Assistance in the Case of a Nuclear Accident or Radiological Emergency.

18. An informal arrangement does exist however between Ireland and the United Kingdom.

19. A provision on notification is included however in a nuclear safety agreement concluded between Japan and China.

20. For a list of these agreements, see the response to question (a) under Title I, Section 2 of the compilation of replies to the questionnaire reproduced in Annex I to these Proceedings.

21. Radiation and Nuclear Safety Authority (STUK).

22. Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.

23. Radiological Protection Institute of Ireland.

24. Nuclear Safety Council (CSN).

25. Department of Trade and Industry, in co-operation with the Department for Environment, Food and Rural Affairs.

complementary role (**Austria, Lithuania**). The responsibility for transmission of information can also be shared between several different authorities according to whom the information is destined (**Bulgaria**). Some countries (**Belgium, France, Germany**) have also organised information exchange at local level through the conclusion of co-operation agreements between the various local authorities concerned and their counterparts in neighbouring countries.

With regard to information feedback on the radiological consequences of the accident from neighbouring countries to the accident country, most states organise for this information to transit through the international organisations which have established the aforementioned reporting mechanisms. Bilateral agreements concluded on the subject usually provide for the intervention either of the entity responsible for nuclear emergency management (**Belgium, Bulgaria, Canada, Germany, Switzerland**) or of the authority which regulates and controls the use of nuclear energy (**Czech Republic, Finland, Ireland, Poland, Spain**). **Japan** provides for information exchange to take place through diplomatic channels.

Finally, these notifications are usually carried out using telephone, fax or telex.

During the discussions which were held on this question at the Workshop, it transpired that only **Belgium** and the **United Kingdom** were contacted directly by the competent French authorities, due to the likelihood of their being affected by radioactive fallout resulting from an accident such as that simulated at Gravelines. All other countries were informed by the International Atomic Energy Agency and the European Commission. The time necessary for this notification to take place, estimated at two/three hours, was deemed too long.

c) Dissemination of information to the public

In all of the countries which replied to the questionnaire, the dissemination of information to the public on the accident and the preventive measures taken is carried out by the public authorities, although sometimes the operator is required to provide information on the conditions existing at the site. In certain countries, including **Belgium**, the insurers also participate in this communication exercise on a voluntary basis.

As for the authorities competent to carry out this dissemination, in most of the countries considered (**Canada**,²⁶ **Czech Republic, Finland**,²⁷ **France, Germany**,²⁸ **Ireland, Japan, Korea, Lithuania, Spain, Sweden**), the central and local authorities work in tandem, each at its own level of competence.

In other countries (**Austria, Belgium, Bulgaria, Denmark, Korea, Luxembourg, Romania, Switzerland, United Kingdom**), the state public authorities alone are responsible for informing the public on the accident and the preventive measures to be taken. It may be the authority which regulates and controls the use of nuclear energy (**Bulgaria**,²⁹ **Poland, Romania**), the body responsible for

26. For further details on the competent authorities according to the place where the accident happened and the intervention levels, see the response to question (d) under Title I, Section 2 of the compilation of replies to the questionnaire reproduced in Annex I to these Proceedings.

27. Ibid.

28. However, if the accident takes place abroad, only the federal authorities are competent.

29. The Commission on the Use of Atomic Energy for Peaceful Purposes does work however in co-operation with the Ministry for Health and the National Civil Protection Agency.

managing emergency situations (**Denmark**) or it may even be the Government itself (**Austria, Switzerland**) or a person or entity designated by and acting on behalf of the Government, e.g. a technical adviser (**United Kingdom**).

Information is generally provided to the public using traditional media (press releases and conferences, radio, television, newspapers) and now also through the creation of web pages in a number of countries, including **Austria, Bulgaria, Denmark, Finland, Germany, Ireland and Korea**. With regard to the alert system for the zone surrounding the plant, there may also be automatic alert, loudspeakers or sirens (for example in **Lithuania**), and in certain other countries (e.g. **Denmark**), the assistance of the police is required. Some countries have chosen an original method of information transfer: for example in **Poland**, the information disseminated by the President of the National Atomic Energy Agency is published in the Official Journal which is then communicated to the media.

3. Intervention of the nuclear operator's insurer

As an introductory remark, it should be mentioned that in **Bulgaria**,³⁰ **Denmark** and **Lithuania**, nuclear power plants or research installations are not insured, as the State covers the liability of the operators of these installations. Therefore, the questions on this subject are not applicable for these countries.

In most of the countries studied (**Austria, Belgium**,³¹ **Canada, Czech Republic, France, Germany, Italy, Japan, Korea, Luxembourg, Poland, Sweden, Switzerland, United Kingdom**), it is up to the nuclear operator to notify his insurer where a nuclear accident has taken place or there is a danger of such an accident taking place, whether or not there exists a formal agreement providing for such an obligation. The authority which regulates and controls the use of nuclear energy can also assume this obligation in some countries (e.g. **Finland**).

The insurer may be permanently on call as is the case in **Austria, Belgium, Canada, the Czech Republic, Finland, France, Korea and Sweden**. In **Italy, Switzerland** and **the United Kingdom**, on the other hand, the insurers are not subject to this obligation.

In a large number of the countries considered (**Belgium, Canada, Czech Republic, Finland, France, Italy, Japan, Sweden, Switzerland, United States**) the insurer is mobilised as of the alert phase. Besides the intervention of the insurer in the field (for a description of the nature of this intervention, see Section 1 of Part II *infra*), the insurer may also establish a centre responsible for evaluating the third party liability consequences of a nuclear accident and to prepare itself for claims management (**Belgium, Finland, Italy, Japan**), including by making the necessary arrangements for immediate access to the funds necessary for indemnification (**Canada**). In **Germany** and the **United Kingdom**, the decision to mobilise the staff of the insurer is taken according to circumstances.

30. When the Bulgarian nuclear insurance pool contracts an insurance policy with the operator of the Kozloduy plant, it will be up to the operator to inform the insurer if a nuclear accident takes place.

31. This responsibility can also lie with the Federal Agency for Nuclear Control.

II. ACCIDENT PHASE – Grave and imminent danger of a nuclear accident

1. Method and limits of the insurer's intervention in the field in the accident State and in the affected neighbouring countries

Most insurance companies which offer third party liability coverage to operators of nuclear installations (in **Austria, Belgium, Canada, France³² and Germany**) would send inspectors, pool members' claims staff or independent loss adjusters to evacuation zones or adjacent areas (or in some cases, to the accident site itself) in order to establish an inventory or register of injured persons, to make a first estimate of potential compensation claims and, in some countries, to distribute emergency assistance payments (see *infra*).

The insurance companies (in **Belgium, the Czech Republic, Finland, France, Japan, Spain, Sweden, Switzerland** and the **United Kingdom**) would also co-operate with the services of the national nuclear insurance pool (and sometimes with its member companies) in neighbouring countries with regard to transboundary damage. Some insurers such as AXA (EDF's insurer) in **France** would work closely with the public authorities in those neighbouring states. However, in certain countries (e.g. **Germany³³**), insurers have made no arrangements at the present time to collaborate with insurers abroad in the event of transboundary damage.

In all countries which responded to the questionnaire, the nuclear operator's insurer does not have any specific powers to ensure the protection of persons evacuated. This task is usually incumbent upon the public authorities (see *supra*).

2. Emergency Assistance Payments

Although certain countries (**Finland, Japan, Lithuania**) do not make provision for such emergency assistance payments, the majority of countries which responded to the questionnaire referred to the possibility of organising such payments, as a form of advance partial payment of a future compensation claim, depending on the circumstances and gravity of the accident.

For example, in **Austria, Belgium, the Czech Republic, Denmark, France, Germany, Korea, Luxembourg, the Netherlands, Sweden, Switzerland** and the **United Kingdom**, such payments are usually not expressly provided for by law but can be distributed on a voluntary basis by the insurer or the state.

In **Canada**, there is specific provision for such payments under Part II of the Nuclear Liability Act (which governs large nuclear accidents), where Section 30 specifies that if the Government deems it necessary, it may provide interim financial assistance to victims of the distress, suffering or hardship caused by a nuclear incident. Under Part I of the Act, the insurance policy does not refer to such payments, but the Nuclear Insurance Association of Canada (NIAC) indicates they would be made in

32. With regard to the Gravelines accident scenario, the number of persons mobilised by the French insurer would have been 100 persons for 8 000 persons evacuated during the first week. The insurer also participates in the crisis centre established at the Prefecture of the area where the accident took place.

33. However, we are informed that in the event of a nuclear accident in Germany, an insurance company abroad (a subsidiary of a German insurance company or an affiliated company etc.) would be responsible not only for ascertaining the facts but also for examining compensation claims under German law.

accordance with the NIAC Claims Manual in the context of the property damage definition in the policy.

In most countries (**Belgium, Czech Republic, France, Germany, Korea, Luxembourg, Netherlands, Poland, Sweden, Switzerland**), this payment is designed to cover medical expenses and costs in relation to transport, temporary accommodation and food for the evacuees. In **Canada**, medical expenses would be covered by provincial health care insurance regimes and therefore it is unlikely that victims would require emergency payments to cover such costs. Other types of expenses covered are essential living expenses (**Switzerland, United Kingdom**) and psychological counselling (**France, Luxembourg**).

The amount available for such emergency payments depends in the majority of countries interviewed on the gravity of the accident and the circumstances of hardship of those in need (**Austria, Belgium, Czech Republic, Germany**,³⁴ **Korea, Luxembourg, Poland, Sweden, Switzerland**,³⁵ **United Kingdom**), and there is no maximum established other than that which results directly from the limited liability of the nuclear operator and the insurance cover available under the relevant policy. However, in certain countries, a maximum amount is already established (in **France**,³⁶ and in **Italy**, pursuant to the contract concluded between the nuclear operator and the insurer) or can be established in the wake of an accident (in **Belgium**, by the *Commission des sinistres*).

Practices differ again in relation to the provision of a lump sum or not. In **Belgium, Canada, France, the Netherlands** and the **United Kingdom**, such payments usually take the form of a lump sum, whereas in the **Czech Republic, Germany, Luxembourg, Poland, Sweden** and **Switzerland** this is not necessarily the case and there may be an in-kind component or such payments may be linked to costs incurred, on the basis of receipts etc.

Rare are those countries which have already determined in advance the necessary formalities in terms of criteria for payment. In **Belgium, the Czech Republic** and the **Netherlands**, it is necessary for victims to present a special form duly completed. Most countries would request presentation of some form of personal identification. Requirements in relation to proof, causation, etc. are varied: **Germany** would require that the victim demonstrate probability of damage caused by a nuclear event,³⁷ and in **Italy, Korea, Luxembourg** and **Switzerland**, it would be necessary to demonstrate a minimum indication of loss or some form of proof. Finally, the payment is usually made upon signature of an invoice (for example in **Germany** and the **Netherlands**).

Modalities of payment again are varied: most countries (**Belgium, Canada, Czech Republic, France, Germany, Korea, Luxembourg, Sweden, Switzerland, United Kingdom**) would use cash or cheque (requiring co-operation by banks to readily honour cheques). Other countries referred to a combination of cash and in-kind contributions in the form of pre-paid accommodation or transport (**Czech Republic, Sweden**). Bank drafts or transfers could also be used in **France** and **Switzerland**. Certain countries (**Belgium, Canada, Korea, Sweden, Switzerland, United Kingdom**) also establish an emergency claim account in advance to facilitate the treatment of requests for emergency payments.

34. The amount would generally be approximately 500 EUR.

35. This amount would be between 500 and 1 000 CHF (341 to 682 EUR).

36. The amount is limited to 762 EUR per individual or 6 098 EUR per family.

37. Such entitlement would be confirmed by the administrative authority present at Länder level.

There is no common thread in terms of procedure for dissemination of the information on such emergency payments to the public. It would appear that in a number of countries, there are no specific provisions governing this, and therefore it would be decided by the competent public authorities in co-ordination with the operator. Certain states provide for this information to be disseminated directly by the operator (**Czech Republic, Korea**), by the operator and insurer working together (**Sweden**), by the insurance pool (**Belgium**), by public authorities (**Canada**,³⁸ **Denmark**,³⁹ **France**,⁴⁰ **Luxembourg, Switzerland**⁴¹) or by the local and national authorities and the operator together (**Germany, United Kingdom**)

A vast range of media would be used to transmit such information, including the press, radio, TV, teletext, telephone, police authorities and Internet or email.

Information received on arrangements in force to distribute emergency payments and disseminate information thereon to the public in neighbouring states was very similar in form and content to earlier questions on co-operation with public authorities and insurers abroad in general.

III. POST-ACCIDENT PHASE

1. Dissemination of information

a) Dissemination of information on the regime of compensation available for nuclear damage

Most of the countries which replied to the questionnaire have not enacted express provisions within their legislation governing the question of dissemination of information in this field. Responses were requested in respect of dissemination of information on:

- the nuclear third-party liability regime in force;
- entitlements to compensation for possible damage;
- financial cover;
- identity of the insurer;
- role of the State;
- steps to be taken to bring a compensation claim, in particular the addresses where forms can be found and the time limit to submit a claim.

38. In Canada, dissemination would be co-ordinated between the Nuclear Insurance Association of Canada or the Nuclear Damage Claims Commission, governments and the nuclear operator.

39. The Danish Emergency Management Agency.

40. In France, this information would be distributed by the *Préfets*, once they had in turn been informed by the operator and the insurer.

41. The Federal Council.

A general tendency is for countries with an electronuclear power programme to closely involve both the operator and the insurer in the dissemination of such information. Therefore, in **Belgium**,⁴² **Canada**,⁴³ **Finland**, **France**, **the Netherlands** and **the United Kingdom**, responsibility for disseminating such information is shared between the central and/or local authorities (including occasionally the courts), the liable operator and his insurer. In the **Czech Republic** and in **Sweden**, the liable operator and his operator are primarily responsible for this, with the State and local authorities placing an ancillary role. In **Korea**, the operator is responsible for disseminating information on all of the above. In certain nuclear countries, however, the public authorities alone are responsible for disseminating such information (**Germany**,⁴⁴ **Japan**, **Lithuania**,⁴⁵ **Switzerland**). This is also the case in **Bulgaria**,⁴⁶ with the exception of the identity of the insurer, which is communicated by the operator.

In non-nuclear countries, it is generally the public authorities and occasionally the courts which assume this role. For example, in **Austria** the Federal Ministry of Justice is responsible for disseminating information on all of the above categories, with the exception of the identity of the insurer (which would be communicated by the operator liable) and the steps taken to bring a claim, where the courts would play a complementary role to that of the Ministry. In **Denmark**, **Ireland**,⁴⁷ **Luxembourg** and **Poland**,⁴⁸ the state and various public authorities assume this role in relation to all of the above categories.

Responses to the question of whether the same information is disseminated to victims in neighbouring countries were varied. In **Belgium**, **Bulgaria**, **Canada**,⁴⁹ **the Czech Republic**, **Finland**,⁵⁰ **France**, **Germany**, **Switzerland** and **the United Kingdom**, the reply to this question was positive. **Japan** stated that although the government has no legal requirement to disseminate such

42. In Belgium, this issue is not expressly regulated.

43. For a description of the procedure in Canada, see the reply to question (a) under Title III, Section 1 of the compilation of replies to the questionnaire reproduced in Annex I to these Proceedings.

44. In Germany, responsibilities are divided between the Länder and the Federal Government. The emergency response authorities of the Länder response are primarily in charge; however in the event of transboundary accidents or incidents abroad, the Federal Government will also intervene. In the event of a large-scale nuclear accident, a central public office would be established to disseminate information on these issues.

45. The responsible body in Lithuania would be the Information Centre under the authority of the Prime Minister Information Survey.

46. The principal body responsible would be the Ministry for Justice. Complementary information is also transmitted by the Commission on the Use of Atomic Energy for Peaceful Purposes in relation to rights to compensation, and by the Council of Ministers with regard to financial cover.

47. The competent authority is the Emergency Reponse Co-ordination Committee.

48. In Poland, information on all the above subjects would be disseminated by the President of the National Atomic Energy Agency.

49. Canada has special arrangements in place with the USA. See the Canada-US Joint Radiological Emergency Response Plan of 27 July 1996.

50. In Finland, where the Finnish Atomic Insurance Pool (FAIP) is the insurer, the information is disseminated through the reinsurance pools in the neighbouring countries based on contractual Standard Reinsurance Rules. The State would coordinate with the insurer to oversee that victims abroad received all the necessary information.

information abroad, it is likely that it would do so. There is no provision yet for such communication in **Korea, Lithuania, Poland** and **Sweden**.

This information is usually disseminated through press releases and traditional media channels or, in certain countries (**Belgium** for example) using a website containing a link to a questionnaire and a model damage declaration form.

b) Actions taken by the insurer to make itself known

Countries were invited to provide information as to whether the insurer immediately identifies itself to the local health authorities in the countries affected, whether it provides health establishments with details of its contact point or agent in that country and whether it takes measures to identify itself directly to the victim. A number of countries (**Japan, Lithuania, Poland**) responded that there were no such rules in force. Certain countries (**Austria, Finland, Germany, Sweden, Switzerland, United Kingdom**) responded positively to most of these questions whereas others (**Belgium, Canada, Czech Republic, France, Korea**) confirmed that no such transboundary measures exist, often indicating that the operator is responsible for providing information to the public on the identity of the insurer and manner in which claims may be processed.

2. Compensation claims handling

a) Persons responsible and claims handling costs

In most countries, the operator (**Belgium, Bulgaria, Japan, Luxembourg**) the insurer sometimes working with claims adjusters (**Czech Republic, Finland, France, the Netherlands**,⁵¹ **Switzerland**,⁵² **United Kingdom**) or both operator and insurer working in tandem (**Austria, Japan, Luxembourg, Sweden**)⁵³ are responsible for handling the registration and payment of compensation claims.⁵⁴ In **Germany**, claims are initially dealt with by the insurer to the extent that such claims do not exceed the amount insured; thereafter they are handled by the operator or its parent company. The Government and the Länder may also be requested to participate with regard to the State guarantee. Furthermore, any compensation granted by one of these three entities must be approved by a committee comprising representatives of the operator, the insurer and the State. In **Denmark**, the State is responsible for handling claims pursuant to the general rules of quasi-delictual tort law. In **Canada**, the NIAC is responsible under Part I of the Nuclear Liability Act (NLA) under the terms of the insurance policy and the reinsurance agreement, whereas if damage is expected to exceed 75 million CAD, Part II of the NLA shall apply and the Nuclear Damage Claims Commission is

51. Except for certain types of compensation claims.

52. Pursuant to a contract concluded with the Swiss Federation, the insurer is also responsible for administering compensation claims in excess of the financial security limit.

53. Victims may also take out claims directly before the courts.

54. Mention should be made of an original procedure for the indemnification of nuclear damage in Ukraine, whereby the victim exercises his/her right to compensation by concluding a nuclear damage indemnification agreement with the operator. Any disputes which arise are submitted to the courts. See Article 5 of the Law on Civil Liability for Nuclear Damage and its Financial Security, published in the Supplement to *Nuclear Law Bulletin* No. 69.

responsible (although NIAC may be retained to administer these claims).⁵⁵ Where amicable settlement is not possible, victims can enter claims before the courts (in **Austria, Bulgaria, Canada, Denmark, France, Germany, Japan**⁵⁶). In certain countries (**Korea, Netherlands,**⁵⁷ **Poland**), the courts alone are competent to deal with compensation claims.⁵⁸

Whereas in certain countries (**Belgium, Czech Republic, Korea**), the interface between the procedures for direct indemnification by the insurer and compensation claims entered before the competent court is not organised, other countries (**Bulgaria, Finland, Japan**) entrust the courts with the power to establish conditions in this respect. With regard to the payment of compensation, in the event of a dispute brought before a court, the insurers may decide to pay the amount of compensation which is unchallenged (**Switzerland**) even before a court judgement is passed; however in other countries the payment of compensation may be suspended until the court delivers judgement (**Japan**). Finally, in **Canada**, the victim, once satisfied with the compensation awarded by the insurer, must sign a release form pursuant to which he/she relinquishes his/her right to appeal this decision before the courts.

Claims handling costs usually lie with the operator (**Bulgaria, France, Korea, Luxembourg**) or the insurer up to a certain limit (**Belgium, Czech Republic, Finland,**⁵⁹ **Germany, Japan, Netherlands, Sweden, Switzerland,**⁶⁰ **United Kingdom**⁶¹, **United States**) or with either one or the other (**Austria**). In **Canada**, under Part I of the Nuclear Liability Act, the claims handling costs would be included in the insurer's limit of liability or the Minister would reimburse NIAC for such costs, whereas under Part II claims handling costs would be the responsibility of the Canadian government. In **Denmark**, the State assumes the costs of handling claims.

b) The inventory and identification of victims; evaluation of damage

In response to the question of how potential victims would be identified or inventories would be carried out in the accident State and affected neighbouring states, a number of countries (**Austria, Bulgaria, France, Sweden**⁶²) explained that experts would be sent out in the field for this purpose. In **Canada** and **Finland**, a claims database would be established by adjusters and the insurance pool respectively. State authorities would carry out this task in the **Czech Republic** and **Denmark**. The **Japanese** legislation expressly states that the insured party, i.e. the operator, is required to notify the

55. For a detailed description of this procedure, see the reply to question (h) under Title III, Section 3 of the compilation of replies to the questionnaire reproduced in Annex I to these Proceedings.

56. This claim can also be brought before the Dispute Reconciliation Committee for Nuclear Damage Compensation.

57. Where compensation claims are of a serious nature, the Court of La Hague forbids insurers from paying compensation and designates a special judge to deal with these claims.

58. For a description of the procedure followed before the courts, see *infra* under Section 5.

59. "Internal" claims handling costs are borne by the pool. External costs (for example costs incurred in respect of expert analysis) are covered by a separate sum insured within the nuclear third party liability policy. When this separate insurance amount is exhausted, costs will be borne by the operator.

60. In Switzerland, such costs will sometimes lie with the State depending on the type of damage.

61. In the UK, beyond the insurance compensation limit, the State will assume these costs.

62. By the claims handling organisation of the insurer.

insurer without delay of the identity of any potential witnesses.⁶³ In **Switzerland**, a model questionnaire⁶⁴ would be widely circulated for this purpose. In the **United Kingdom**, victims or dependants would be required to register with Insurers' Claims Bureaux.

Some countries (**Austria, Belgium, Bulgaria, Korea, Switzerland**) have expressly provided for a system allowing an initial estimate of the extent of damage. In other countries (**Canada, Finland, France**) such a system has not been specifically established but would probably be organised by the insurer in liaison with other appropriate authorities.

States appear to have quite varied practices in terms of mobilising qualified experts (for example in the agricultural field) to carry out damage assessment. This can be organised by the insurer, the operator, the parent company of the operator, the public authorities, the courts, or through the nuclear emergency plan. Expert committees are often established for this purpose.

Where loss adjustment is carried out, the decision-making power of experts entrusted by the insurer with the task of evaluating the damage is governed by the contract concluded between the operator and the insurer or, possibly, an agreement between the State and the insurer (**Finland, Germany**). With regard to the courts, they are called upon to rule in an independent manner upon compensation claims involving public funds (**Belgium, Finland**).

c) Heads of damage subject to compensation

Procedures in relation to the determination of heads of damage subject to compensation are quite streamlined. In most countries (**Austria, Belgium, Bulgaria, Canada, France, Germany, Japan, Korea, Sweden**), the insurer determines these heads of damage in the first instance and, if the claimant is dissatisfied with the insurer's decision, the matter is then referred to the courts. The applicable law on nuclear third party liability is used by both the insurer and the courts to determine such heads of damage. In **Finland** and **Switzerland**, the insurer alone is responsible for determining the heads of damage subject to compensation, whereas in the **Czech Republic, Luxembourg** and the **United Kingdom**, this matter falls to be decided by the courts. In **Denmark**, the State decides on this in the first instance and if contested, the issue will go to court.

Certain heads of damage are (almost) always covered. This is the case for example with regard to expenses related to the evacuation and accommodation of the public, which are compensated in **Austria, Belgium, Bulgaria, Canada, Denmark, Finland, France, Germany, Japan, Korea, Luxembourg** and **Poland**. Most countries (**Austria, Belgium, Bulgaria, Canada**,⁶⁵ **Czech Republic, Denmark, Finland, France, Germany, Korea, Luxembourg, Poland, Sweden**,⁶⁶ **Switzerland, United Kingdom**) also compensate for loss of life and personal injury and loss of or damage to property. Some compensate for economic loss consequential to personal injury or property damage (**Canada, Denmark, France, Germany, Sweden, Switzerland**). Loss of income is compensable in almost all countries as long as it is a consequence of the nuclear accident, as are medical expenses. The situation in relation to pure economic loss is varied and only certain countries provide for such

63. Article 12 of the General Conditions between Insurer and Insured Party: "Obligations upon the Occurrence of an Accident".

64. A copy of this questionnaire is reproduced in Appendix 2 to the compilation of replies to the questionnaire *infra*.

65. Both bodily and psychological injury are covered.

66. *Ibid*.

damage to be compensated (**Sweden**⁶⁷). In **Japan**, all heads of damage are subject to compensation as long as there is a reasonable relationship of cause and effect between the damage suffered and the radiation exposure.

Decontamination expenses are covered in all countries which responded to the questionnaire.

Compensation for damage to the environment can be paid in **Austria, Bulgaria, the Czech Republic, Denmark, Korea, Luxembourg** and **Poland**. In **Canada**, this head of damage is not explicitly provided for but rather it would be left to the court to decide. In **Belgium, Finland** and **France**, this head of damage is not provided for in the current legislative framework. In **Germany, Ireland, Sweden** and **Switzerland**, damage to the environment per se is not compensated but it can be included under property damage.

In most countries,⁶⁸ with the exception of **Luxembourg**, non-material damage such as loss of reputation or image⁶⁹ would not be compensated.

Compensation can be paid in respect of preventive measures taken in the wake of a nuclear accident in all countries which responded to the questionnaire.

In most of the countries which replied to the questionnaire, there is no system of priorities in the management of compensation claims (**Austria, Belgium, Czech Republic, Denmark, Finland, Japan, Korea, Luxembourg, Sweden, Switzerland, United Kingdom**). However, in **Bulgaria** and in **France**, the compensation of bodily injury takes priority and in **Canada** and **Germany**, although such a priority system does not exist, the legislation provides that it can be established.

Where there are insufficient funds available under the financial security to compensate all compensation claims, a certain number of countries considered provide for compensation amounts to be reduced proportionately (**Austria, Canada, Denmark, Finland, Poland**,⁷⁰ **Sweden**) or for a certain percentage of the compensation amount available (10% in **Bulgaria**) to be set aside to provide for future claims. Other countries again provide for a vote by Parliament on the distribution of supplementary funding (**Canada, United Kingdom**⁷¹). Finally, in some countries which have an unlimited liability regime, the Government (**Japan, Switzerland**⁷²) or the operator (**Korea, Switzerland**⁷³) will be required to pay the difference.

67. Under certain circumstances only.

68. In Germany, it is foreseen to amend the legislation to include such damages. See the German reply to question (g) under Title III, Section 3 of the compilation of replies to the questionnaire reproduced in Annex I to these Proceedings.

69. With the exception of physical and mental suffering which is compensated in a number of countries.

70. Only for the compensation of damage to property or the environment.

71. Where the second tier of compensation under the Brussels Supplementary Convention, i.e. the public funds, has been exhausted.

72. In respect of amounts between 700 million CHF and 1 billion CHF.

73. In respect of amounts beyond 1 billion CHF, compensation will be paid from the operator's assets.

d) Medium and long-term administration of compensation claims by the insurer⁷⁴

Out of all the countries which replied to the questionnaire, only **Finland⁷⁵** and **Switzerland⁷⁶** refer to the conclusion of agreements concerning the medium- and long-term management of claims by the nuclear operator's insurer. Other countries (**Belgium, France, United Kingdom**) do refer, however to the possibility of establishing such measures.

In most of the countries interviewed, with the exception of **Switzerland**, health establishments and hospitals are not authorised, due to medical confidentiality rules, to provide the operator's insurer with information on progress in the treatment of victims; victims are however free to provide this information directly to the insurer if they so wish.

Subject to some minor differences, the medium- and long-term administration of compensation claims is generally carried out by the same authorities as those which initially deal with compensation claims. This would usually be the operator (**Luxembourg⁷⁷**), the nuclear insurance pool (**Belgium, Finland, Japan,⁷⁸ Switzerland, the United Kingdom**) or both of these in tandem (**Germany, Sweden**). In **Denmark**, this administration would be carried out by the State and in **Canada**, it would fall within the ambit of the Nuclear Damage Compensation Commission. This issue is not regulated at all in **Austria** or in the **Czech Republic**.

3. Interface with the worker compensation regime⁷⁹

In most of the countries which replied to the questionnaire, workers exposed to radiation must address their compensation claim in respect of damage suffered following the accident to the insurer providing coverage in respect of work-related accidents (**Austria, Belgium, Denmark, Finland, France, Germany,⁸⁰ Italy, Japan, Korea, Poland,⁸¹ Sweden,⁸² Switzerland**), to the employer (**Czech Republic**) or to both (**Bulgaria**). Only occasionally are such claims addressed directly to the liable operator (**Luxembourg, Poland⁸³**). However, there may be provision for the workers to apply at a later stage (**Belgium**) or alternatively (**Japan, Sweden**) to the nuclear operator's insurer. Depending on the authority to which the claims have been submitted, the applicable law may be labour law and/or

74. These questions are not applicable for Bulgaria and Lithuania. See comment under Section 3 of the first part of this analysis.

75. Such conventions have been concluded with foreign reinsurance pools.

76. This convention only concerns however the Swiss Confederation and the Swiss Nuclear Insurance Pool.

77. If claims were entered before the courts, then they would be responsible for such administration.

78. Until the financial security has been exhausted.

79. On this subject, see the Study carried out by the NEA Secretariat "Compensation Regimes Applicable to Radiation Workers in OECD Countries" published in *Nuclear Law Bulletin* No. 66 (December 2000), p. 7. See also the paper (in French) submitted by M. Jacques Deprimoz at the Nuclear Inter Jura 1993 (Biennial Congress of the International Nuclear Law Association) – Proceedings, p. 169.

80. Damage to workers' property however is indemnified pursuant to the Atomic Energy Act.

81. If the operator is a public enterprise.

82. For a description of the different types of insurance which exist, see the reply to question (a) under Title II, Section 5 of the compilation of replies to the questionnaire which is reproduced in Annex I to these Proceedings.

83. If the operator is a private company.

social security law where it is the employer or the insurer providing coverage in respect of work-related accidents to determine the amount of compensation to be granted,⁸⁴ or on the other hand it may be the national legislation governing nuclear third party liability where this claim is submitted to the nuclear operator or his insurer.

In some of the countries considered (**Czech Republic, Finland, Italy, Luxembourg, Switzerland**), the insurer providing coverage for work-related accidents has a general right of recourse against the operator of the installation where the accident took place, with a view to reimbursement of the compensation provided to exposed workers under the regime governing insurance for work-related accidents. In other countries, this right is subject to certain conditions: the damage must result from an unexcusable fault of the operator (**France**) or such damage must have been caused intentionally or due to grave negligence (**Germany, Japan**) or even that the victims are public servants (**Belgium**). Finally, such a right of recourse does not exist in **Bulgaria, Denmark, Korea** or **Sweden**.

In most of the countries which responded to the questionnaire, where the amount of damage suffered is superior to the amount of compensation provided for pursuant to the regime on work-related accidents (**Belgium, Bulgaria, Canada, France, Japan, Luxembourg, Poland, Sweden, Switzerland**) or if certain heads of damage are not covered by the legislation on work-related accidents (**Denmark**), exposed workers can take their claim to the operator to claim the difference or the indemnification of damage not covered. In **Austria**, as there is no limit established by the legislation, this question does not apply.

4. Exercising rights of recourse

In most countries (**Canada, Czech Republic, Denmark, Finland, France**,⁸⁵ **Korea**,⁸⁶ **Poland**,⁸⁷ **Sweden**,⁸⁸ **United Kingdom**⁸⁹), the prescription period within which compensation claims must be entered is three years from the date upon which the victim became aware of the damage and of the identity of the person who caused it, and ten years from the date of the accident. In Austria and Germany, the latter prescription period is 30 years although the former period is similar. Some countries (e.g. **Belgium**) distinguish between the prescription period for property damage (10 years) and personal injury (where it can be extended to up to 30 years). Finally, some countries simply establish one prescription period of five (**Bulgaria**) or three (**Switzerland**) years from the date upon which the victim became aware of the damage and the identity of the person liable; or 20 (**Japan**) or 30 (**Luxembourg**) years from the date of the accident.

84. In Denmark, Korea and Switzerland, this compensation is allocated on the basis of the Act on Protection against the Consequences of Industrial Injuries, the disaster compensation insurance law and the Swiss Law on Accident Insurance respectively.

85. Where damage appears after this ten-year period, the accident took place on French territory and a French court has jurisdiction over claims, a compensation claim may be brought against the French State during a further period of five years after the expiration of the ten-year period.

86. With regard to claims for compensation in respect of personal injury, this period is extended to 30 years.

87. With the exception of personal injury for which there is no prescription period.

88. Beyond these dates, and up to 30 years from the date of the accident, compensation will be paid by the State.

89. Beyond these dates, and up to 30 years from the date of the accident, compensation will be paid by the Government.

Relatively few of the countries studied (**Canada, Luxembourg, United Kingdom, United States**) provide for the possibility of taking class actions.⁹⁰ However, although class actions in the manner in which they are organised in the United States do not exist in **Austria, Bulgaria** and **Japan**, there are possibilities for the introduction of joint claims. Furthermore, in the event of a nuclear accident in **Germany** or **the United Kingdom**, the court would certainly be called upon to rule on test cases before proceeding with the remainder of the claims.

In some of the countries which replied to the questionnaire, there is a possibility of taking action directly against the operator's insurer both in the accident State (**Austria, Belgium, Bulgaria,**⁹¹ **Czech Republic, Finland, France, Korea, Poland, Sweden, Switzerland**) and in neighbouring countries (**Belgium,**⁹² **Finland, France, Korea, Poland, Sweden, Switzerland**⁹³). This right does not exist however in **Canada, Germany, Ireland, Japan, Luxembourg, the Netherlands, the United Kingdom** and **the United States**. Where this possibility is not provided for, victims who are resident abroad must present their claims to the nuclear operator (**Germany, Japan, Luxembourg, Switzerland**) or take a case before the courts of the accident State (**Canada**⁹⁴).

With regard to the question whether the State of residence of victims would assist them in entering their compensation claims, the replies are diverse: whereas **Canada, Ireland, Sweden** and **Switzerland** state that they have not provided for such assistance, a number of countries (**Denmark, Finland, France, Germany, Japan, Luxembourg**) indicate that if necessary, such assistance could be provided to victims. Certain countries point out that there is no legal obligation underlying this (**Japan**) or that there are no set procedures governing such assistance (**France**). On the contrary, in **Austria**, this assistance would be provided as part of the general duty of public administration; it can also be incorporated into the legal aid system (**Austria, Belgium**). Finally, with regard to the assistance granted by the accident country to victims residing abroad, this may result from diplomatic negotiations (**Czech Republic**) or the implementation of bilateral agreements (**Bulgaria**).

The procedure governing amicable settlement of compensation claims between the operator, the insurer or the insurance pool and the victim may be regulated by the ordinary law (**Finland, France, Germany**) on the condition that all parties agree (**Finland**), or it may be entirely left to the discretion of the parties (**Austria, Belgium**). It may also be organised by the liable operator (**Czech Republic, Luxembourg**). In **Canada**, in the event of a large-scale accident, the Nuclear Damage Compensation Commission would apply a procedure similar to that used in administrative tribunals rather than the essentially adversarial nature of traditional tort litigation, applied pursuant to Part I of the Nuclear Liability Act, in order to ensure a prompt and equitable settlement of claims. With regard to the manner in which such amicable settlement is organised, it generally begins with a round of negotiations between parties, which may be approved by the courts (**Bulgaria**), which if unsuccessful may be brought before a mediator or an arbitrator followed by the courts (**Bulgaria, France, Japan, Sweden**) or sometimes directly before the courts (**Switzerland**).

In the case of claims brought before the court, the competent court in a number of countries will be that of the capital of the accident state (**Belgium,**⁹⁵ **Bulgaria,**⁹⁶ **Finland,**⁹⁷ **France,**⁹⁸ **Poland**⁹⁹). In

90. A governmental draft to this effect is, however, being discussed at the moment in Sweden.

91. As long as there is an insurance policy.

92. As long as Belgian law is applied.

93. On condition that bilateral agreements providing for this possibility exist.

94. With regard to victims living in the United States.

95. The Court of First Instance of Brussels.

other countries, it will be the Court of First Instance in the area where the accident took place (**Czech Republic, Germany**,¹⁰⁰ **Japan, Sweden**) or of the province (**Canada**), the district (**Germany**,¹⁰¹ **Poland**) or canton (**Switzerland**) on the territory of which the accident took place or on the territory of which damage was caused or suffered or where preventive measures were taken (**Austria**). This last example does not endorse the principle of one single competent court which applies in the other cases. In the **United States**, the competent court shall be the Federal Court of the district where the installation that caused the accident is situated.

Before the courts, the procedure generally followed is that of the ordinary law, where the courts apply the Code of Civil Procedure (**Austria, Bulgaria, Japan, Poland**¹⁰²).

The control over the recognition and enforcement in neighbouring countries of the judgements of the competent court, in this particular case the *Tribunal de grande instance* in Paris, is generally exercised by the courts of the State of origin of the victims in application of international obligations resulting from agreements or conventions binding the two countries (in **Bulgaria, Korea** and **Switzerland** for example) or more particularly by Council Regulation No. 44/2001 of 22 December 2000 on jurisdiction and the enforcement of judgements in civil and commercial matters (**Austria, Germany**,¹⁰³ **Luxembourg**). Within States Party to the Paris Convention on Third Party Liability in the Field of Nuclear Energy, the recognition and enforcement of the judgements of the competent court is supposed to be assured and therefore the decision would not subject to any further control. Therefore in **Denmark**, for example, the bailiff's court is responsible for enforcing the decision. In **Finland**, if the Government does not assume this task, the Appeal Court of Helsinki may be seized of the enforcement order.

5. The interface between the accident State and the international nuclear third party liability regime

The following questions are not applicable to countries which are not Party to the Paris Convention (PC) and the Brussels Supplementary Convention (BSC).

Pursuant to Article 10 of the BSC, where it appears that the damage caused by a nuclear incident is likely to exceed the tiers for which the operator and the accident State are liable, the

96. The District Court of Sofia.

97. The District Court of Helsinki.

98. The *Tribunal de grande instance* of Paris.

99. Only where a limited liability fund has been established. See Footnote 102.

100. For further information on the question of which court would be competent, see the reply to question (f) under Title III, Section 6 of the compilation of replies to the questionnaire which is reproduced in Annex I to these Proceedings.

101. Ibid.

102. However, if it is anticipated that the compensation awarded in respect of damage to property or the environment will exceed the operator's liability, the operator may establish a limited liability fund. In this case the special procedure established under the Polish Code of the Sea would apply.

103. For a description of the means of transmission of the French decision to Germany, see the reply to question (g) under Title III, Section 6 of the compilation of replies to the questionnaire which is reproduced in Annex I to these Proceedings.

accident State is required to inform the other Contracting Parties to the BSC. This notification would generally be carried out through diplomatic channels (**Belgium, Denmark, Finland, France, Germany, United Kingdom**) although **Finland** would rely on the Depository of the BSC, the Belgian government, in this respect at the outset. In most of these countries, no other specific arrangements have been made to organise the interface between the accident State and the other Contracting Parties to the BSC.

With regard to the question of how to ensure continuity and uniformity in the administration of compensation claims covered by the three tiers, most of the countries considered (**Belgium, Finland, France, Sweden, United Kingdom**) mentioned that this would be carried out through the conclusion of agreements between the insurer and the State, whereby the State would entrust the insurer with the administration of the compensation claims and distribution of public funds for this purpose. A mechanism providing for control, or even approval, by the State can sometimes be established (**France, Sweden**). In **Germany**, due to the unlimited liability regime, victims should only address their claims to the operator.

All of the countries that replied to the questionnaire and which are Party to the Paris/Brussels regime (**Belgium, Finland, France, Germany, Sweden, United Kingdom**) stated that the terms of remuneration of insurers for their work in administering the second and third tiers are set out in an agreement concluded between the insurer and the State.

The reference date for the calculation of indemnities due under the third tier is that of the accident (**Belgium, Germany**) or is identical to the date used for the calculation of indemnities under the first tier (**Finland**). Due to the lengthy nature of the procedure, adjustment may be necessary to take into account differences in value between this date and that of the final judgement (**Germany**).

Belgium, Finland and **Germany** do not provide for payment of national contributions to the international tier by instalment whereas in **France**, such instalments would be organised according to the amount of damage to be compensated.

With regard to the question as to whether the accident State would advance the funds in respect of the international tier, **Belgium** and **Finland** replied positively, the latter specifying that the State would advance this sum. This option would also be followed by **Germany** if necessary. **France** has not provided for such a system.

None of the States studied has established a compensation system which would allow a neighbouring State, Party to the BSC, to use part of its contribution to the international tier of the BSC to indemnify its nationals who suffered damage due to the accident.

As set out in the PC and the BSC, the interest and costs would be assumed in respect of the damage covered by the first tier by the operator (although insurers could be required to pay part of these expenses pursuant to the insurance policy – **Finland, France**); in respect of the second tier, by the accident State, and in respect of the third tier, by the Contracting Parties to the BSC on a prorata basis with regard to their respective contributions.

Annex

NATIONAL LEGISLATION GOVERNING NUCLEAR THIRD PARTY LIABILITY¹⁰⁴

Austria

Act on Civil Liability for Damage Caused by Radioactivity of 7 October 1998. The text of this Act was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 63.

Belgium

Act on Third Party Liability in the Field of Nuclear Energy of 22 July 1985, amended on 8 June 2000. The text of this Act as of 1985 was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 37. A note on its 2000 Amendment was published in *Nuclear Law Bulletin* No. 66, p. 35.

Bulgaria

Chapter X of the Law on the Safe Use of Nuclear Energy of 28 June 2002. A note on this Law was published in *Nuclear Law Bulletin* No. 70.¹⁰⁵

Canada

Act on Nuclear Third Party Liability of 1970, amended in 1985. The text of this Act as of 1970 was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 6. A note on its 1985 Amendment was published in *Nuclear Law Bulletin* No. 44, p.34.

Czech Republic

Section V (Articles 32-38) of Act No. 18/1997 on the Peaceful Uses of Nuclear Energy and Ionising Radiation of 24 January 1997. The text of this Act was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 61.

104. Back issues of the *Nuclear Law Bulletin* are available from the OECD/NEA website at the following address : <http://www.nea.fr/html/law/nlb/index.html>

105. The Bulgarian replies to the questionnaire are based on the previous legislation, i.e. Chapter IV (Articles 33-38) of the Act on the Use of Atomic Energy for Peaceful Purposes of 7 October 1985, amended on 20 July 1995. The text of this Act as amended was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 58.

Denmark

Act No. 332 concerning Compensation for Nuclear Damage of 19 June 1974, amended on 7 December 1988. The text of this Act as of 1974 was reproduced in *Nuclear Law Bulletin* No. 15, p. 33. A note on its 1988 amendment was published in *Nuclear Law Bulletin* No. 43, p. 64.

Order No. 582 of 29 June 1994 increasing the amount of compensation. A note on the Order was published in *Nuclear Law Bulletin* No. 54, p. 46.

Finland

Nuclear Liability Act of 8 June 1972, amended in 1986, 1989 and 1994. The text of this Act as amended in 1989 was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 44. Notes on the 1994 Amendment were published in *Nuclear Law Bulletin* Nos. 53, p.80, and 55, p.29.

Decree No. 785 of 30 October 1998 raising the liability amount of the nuclear operator. A note on this Decree was published in *Nuclear Law Bulletin* No. 63, p. 69.

Germany

Chapter IV (Sections 25-40) of the Atomic Energy Act of 23 December 1959, last amended on 22 April 2002. The text of this Act as amended was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 70.¹⁰⁶

Ireland

No specific legislation governing nuclear third party liability.

Italy

Chapter III (Sections 15-25) of Act No. 1860 on the Peaceful Uses of Nuclear Energy of 31 December 1962, as amended by Decree No. 519 of 10 May 1975. The text of this Act as amended was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 16.

Japan

Law on Compensation for Nuclear Damage of 17 June 1961, as successively amended. The text of this Law as amended on 31 March 1989 was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 45. Notes on its 1994 and 1999 Amendments were published in *Nuclear Law Bulletin* Nos. 56, p.88, 63, p.76, and 64, p.57.

106. Except where specified, the German replies to the questionnaire are based on the Atomic Energy Act before its last amendment of 22 April 2002.

Law on the Indemnity Agreement for Compensation of Nuclear Damage of 17 June 1961, successively amended. The text of this Law as amended on 27 May 1988 was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 45.

Korea

Nuclear Damage Compensation Act No. 2094 of 24 January 1969, last amended on 16 January 2001. The text of this Act as amended was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 68.

Lithuania

Chapter XI (Articles 58-63) of the Law on Nuclear Energy of 14 November 1996. The text of this Law was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 60.

Netherlands

Act on Nuclear Third Party Liability of 17 March 1979, amended on 26 June 1991. The text of this Act as amended was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 49.

Poland

Chapter 12 (Sections 100-108) of the Atomic Energy Act of 29 November 2000. The text of this Act was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 68.

Romania

Law on Civil Liability for Nuclear Damage of 3 December 2001. The text of this Law was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 69.

Spain

Chapters VII-X of the Act on Nuclear Energy of 29 April 1964, as successively amended. A note on its amendment of 30 December 1994 increasing the liability amounts was published in *Nuclear Law Bulletin* No. 55, p. 42.

Sweden

Nuclear Liability Act of 8 March 1968, amended on 10 May 1974, 22 December 1982, 1 July 1995 and 7 March 2001. The text of this Act as amended in 1982 was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 33. Notes on the later amendments were published in *Nuclear Law Bulletin* Nos. 37, p. 20, 42, p. 24, 49, p. 61, 56, p. 90, and 67, p. 52.

Switzerland

Act on Nuclear Third Party Liability of 18 March 1983, amended in 1991. The text of this Act as of 1983 was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 32. A note on the 1991 Amendment was published in *Nuclear Law Bulletin* No. 49, p. 61.

Implementing Ordinance of 5 December 1983, as successively amended. Notes on this Ordinance and its amendments were published in *Nuclear Law Bulletin* Nos. 33, p. 18, 37, p. 22, 59, p. 59, and 67, p. 53.

Ordinance raising the nuclear operators' third party liability insurance cover of 24 October 1990. A note on this Ordinance was published in *Nuclear Law Bulletin* No. 47, p. 55.

United Kingdom

Sections 12-21 of the Nuclear Installations Act of 1965, amended in 1983 and 1989. The text of this Act as amended in 1983 was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 33. A note on the 1989 Amendment was published in *Nuclear Law Bulletin* No. 44, p. 48.

Nuclear Installations (Increase of Operators' Limits of Liability) Order of 24 March 1994. A note on this Order was published in *Nuclear Law Bulletin* No. 53, p. 95.

United States

Price-Anderson Act of 1957, as successively amended. The text of this Act as amended in 1988 was reproduced in English in the Supplement to *Nuclear Law Bulletin* No. 42.

ANALYSE COMPARATIVE FONDÉE SUR LES RÉPONSES AU QUESTIONNAIRE ET LES DISCUSSIONS INTERVENUES AU COURS DE L'ATELIER

Afin de favoriser une meilleure préparation des participants aux débats attendus au cours de l'Atelier sur l'indemnisation des dommages en cas d'accident nucléaire, le Secrétariat de l'AEN, avec le concours des autorités françaises, a rédigé un questionnaire relatif à la mise en œuvre des régimes de responsabilité civile et de réparation pour les dommages nucléaires dans le cas d'une situation d'urgence nucléaire et l'a diffusé aux pays invités à participer à l'Atelier afin qu'il serve de base aux discussions.

Les représentants des pays qui, en raison de leur situation géographique par rapport à la centrale nucléaire de Gravelines où a eu lieu la simulation d'accident nucléaire le 22 mai 2001, seraient susceptibles d'être plus particulièrement concernés par l'application des régimes de responsabilité à la suite d'un accident nucléaire en France présentant des effets transfrontières¹, ont été au premier chef sollicités pour répondre à ce questionnaire. Un certain nombre d'autres pays, dits « non affectés », ont également accepté de répondre au questionnaire.

Sur la base des réponses au questionnaire (lesquelles sont reproduites à l'annexe I du présent compte-rendu), ainsi que des discussions s'étant tenues au cours de l'Atelier, le Secrétariat a effectué une étude comparative des différents mécanismes d'alerte et de gestion d'un accident nucléaire ainsi que d'indemnisation des victimes, existant dans les pays participant à l'Atelier. Cette étude vise à offrir une synthèse des réponses apportées au questionnaire. Par ailleurs, cette analyse étant fondée sur les réponses apportées au questionnaire ainsi que sur les informations obtenues au cours des discussions s'étant tenues durant l'Atelier, il ne saurait être déduit de l'absence d'indication expresse d'un pays donné à titre d'illustration des conclusions formulées par le Secrétariat que rien n'est prévu dans ce pays sur ce point en question.

Les pays dont les mécanismes d'alerte et d'indemnisation des dommages nucléaires ont été étudiés dans le cadre de cette analyse sont les suivants : l'Allemagne, l'Autriche, la Belgique, la Bulgarie, le Canada, la Corée, le Danemark, l'Espagne, la Finlande, la France, l'Irlande, l'Italie, le Japon, la Lituanie, la Pologne, la Roumanie, le Royaume-Uni, la Suède, la Suisse et la République tchèque, ainsi que de façon incidente les États-Unis et les Pays-Bas. Le Secrétariat a jugé utile d'indiquer en annexe à la présente analyse la législation nationale régissant la responsabilité civile nucléaire dans ces pays.

1. Ces pays ainsi sélectionnés sont l'Allemagne, la Belgique, l'Irlande, le Luxembourg, les Pays-Bas, le Royaume-Uni et la Suisse.

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I. PHASE D'ALERTE – Menace grave et imminente d'un accident nucléaire

1. Prise de décision

a) *Les organismes compétents pour décider des types de mesures préventives à prendre et leur coordination avec les pays voisins*

S'agissant de la nature des contre-mesures à prendre, tous les pays étudiés ayant des centrales nucléaires sur leur territoire prévoient la mise à l'abri et l'évacuation des populations, ainsi que la distribution aux populations exposées de pastilles d'iode (**Allemagne, Belgique, Bulgarie, Canada, Corée, Espagne, Finlande, Japon, Lituanie, Roumanie, Royaume-Uni, Suède, Suisse, République tchèque**), les seuils d'intervention variant toutefois d'un pays à l'autre². D'autres contre-mesures peuvent s'ajouter à celles-ci, telles des restrictions quant à l'accès à la zone affectée (par exemple au **Canada**, en **Finlande**, au **Japon** et au **Luxembourg**) ou à la commercialisation de produits alimentaires originaires de la zone affectée par l'accident (par exemple au **Canada**, en **Finlande**, en **Lituanie**, au **Luxembourg**, au **Royaume-Uni** et en **Suède**)³.

La plupart des pays étudiés (**Belgique, Bulgarie, Danemark, Espagne, Finlande, Irlande, Japon, Lituanie, Luxembourg, Pologne, Roumanie, Suisse**) ont mis en place un système d'intervention en cas d'urgence régi par l'État, les contre-mesures visant à protéger la population étant ainsi décidées par les *autorités nationales*. La prise de décision incombe généralement au Gouvernement (**Bulgarie, Luxembourg, Suisse**), notamment au Ministère de l'Intérieur (**Espagne, Finlande, Pologne**)⁴, ou à des comités placés sous sa tutelle (**Belgique, Irlande**) ou encore aux agences ou commissions spécialement chargées de la gestion des situations d'urgence (**Danemark, Japon, Lituanie, Roumanie, Suisse**), éventuellement sur avis de l'autorité de réglementation et de contrôle de l'utilisation de l'énergie nucléaire⁵ (**Bulgarie, Espagne, Finlande, Irlande**). L'**Autriche** est également dotée d'un système centralisé ; toutefois, les autorités chargées de décider des mesures d'intervention varient selon la décision à prendre : peut ainsi être compétent le Département de la

2. Pour de plus amples informations sur les seuils d'intervention, voir « Contre-mesures à court terme en cas d'urgence nucléaire ou radiologique – Évaluation du questionnaire de l'AEN sur les contre-mesures à court terme de mars 2001 », par l'Agence de l'OCDE pour l'énergie nucléaire, à paraître.

3. Voir la réglementation de l'Union européenne en la matière, dont : Règlement (Euratom) n° 3954/87 du Conseil du 22 décembre 1987 fixant les niveaux maximaux admissibles de contamination radioactive pour les denrées alimentaires et les aliments pour bétail après un accident nucléaire ou dans toute autre situation d'urgence radiologique (JO n° L 371 du 30/12/1987, p. 11 à 13) ; Règlement (Euratom) n° 944/89 de la Commission du 12 avril 1989 fixant les niveaux maximaux admissibles de contamination radioactive pour les denrées alimentaires de moindre importance après un accident nucléaire ou dans toute autre situation d'urgence radiologique (JO n° L 101 du 13/04/1989, p. 17 à 18) ; Règlement (CEE) n° 737/90 du 22 mars 1990 relatif aux conditions d'importation de produits agricoles originaires des pays tiers à la suite de l'accident survenu à la centrale nucléaire de Tchernobyl (JO n° L 082 du 29/03/1990, p. 1 à 6), tel que modifié par le Règlement (CE) n° 616/2000 du Conseil, du 20 mars 2000 (JO n° L 075 du 24/03/2000, p. 1 et 2) ; Règlement (CEE) n° 2219/89 du Conseil, du 18 juillet 1989, relatif aux conditions particulières d'exportation des denrées alimentaires et des aliments pour bétail après un accident nucléaire ou dans toute autre situation d'urgence radiologique (JO n° L 211 du 22/07/1989, p. 4 et 5).

4. Conjointement avec le Ministère de la Santé.

5. Dans les pays non nucléaires, ce terme s'entend des autorités de contrôle des sources radioactives.

radioprotection du Ministère fédéral de l'Agriculture et des Forêts, de l'Environnement et de la Gestion de l'Eau, le Ministère fédéral chargé de la Sécurité Sociale ou encore la Gestion de crise nationale de la Chancellerie fédérale, en coopération avec les Gouverneurs des Länder.

Un certain nombre d'autres pays investissent les *autorités locales* du pouvoir de décider des contre-mesures. Ainsi, les autorités compétentes sont : en **Allemagne**, les autorités d'intervention d'urgence des Länder ; au **Canada**, les provinces ; en **Corée**, le gouvernement local ; en **France**, le préfet du département ; en **Suède**, les Administrations des comtés ; et, en **République tchèque**, le chef de l'autorité locale de la zone affectée. Les autorités nationales conservent néanmoins dans certains pays un pouvoir de coordination (**Canada, Suède**), voire de contrôle (**Allemagne**) de ces mesures.

Au **Royaume-Uni**, la décision de prendre ou non des mesures préventives appartient à un Groupe de coordination stratégique, présidé par la police locale et composé tant de représentants du Gouvernement que des autorités locales, qui agit sur les conseils du Conseiller technique du Gouvernement.

Les contre-mesures telles que l'interdiction des récoltes, de la vente de produits alimentaires ou autres, ou encore la restriction des activités économiques, relèvent dans certains pays d'autorités différentes de celles responsables des mesures préventives susmentionnées (mise à l'abri, prise d'iode et évacuation). Il peut s'agir d'autorités locales (ainsi, en **Lituanie**, ces décisions relèvent des spécialistes des centres sanitaires de district) mais le plus souvent il s'agira d'autorités nationales, notamment des administrations responsables de l'alimentation (**Finlande, Royaume-Uni, Suède**) ou du Gouvernement (**Allemagne**⁶, **Danemark**⁷, **Espagne**). À signaler qu'en **France**, l'autorité compétente à cet égard, une fois la phase d'alerte achevée, est le Premier Ministre en concertation avec les différents départements ministériels concernés et non plus le préfet du département.

S'agissant de la coordination des mesures à prendre, un certain nombre de pays, en particulier les pays nordiques (**Danemark, Finlande, Islande, Norvège et Suède**), mais aussi le **Canada** et les **États-Unis**, se sont entendus par accord formel⁸ en vue d'harmoniser les critères d'intervention en cas d'urgence radiologique et se sont engagés à s'informer mutuellement des contre-mesures prises en cas d'accident et à les coordonner. En revanche, d'autres pays, par exemple le **Japon** et le **Luxembourg**, n'ont prévu aucune disposition formelle en vue de régir la procédure de consultation des pays voisins.

b) La prise en charge du coût des mesures préventives et leur couverture financière éventuelle

Deux types de coûts sont à distinguer : les coûts directement afférents aux mesures préventives décidées par les autorités compétentes et relevant de leur obligation de protection civile de la population, c'est-à-dire les coûts liés à l'évacuation (par exemple, les coûts de logistique, de transport,

6. Le Ministère fédéral de la Santé, celui de l'Environnement, de la Protection de la Nature et de la Sûreté Nucléaire et celui de la Protection des Consommateurs, de l'Alimentation et de l'Agriculture peuvent adopter des recommandations d'interdiction des récoltes ou de mise sur le marché de produits alimentaires.

7. S'agissant de la restriction des activités économiques. L'Institut national d'hygiène des radiations est compétent s'agissant des questions relatives aux produits agricoles.

8. Voir respectivement le document sur la politique commune d'intervention intitulé « Critères nordiques d'intervention en cas de situations d'urgences nucléaires ou radiologiques – Recommandations » et le Plan d'intervention conjoint en cas d'urgence radiologique entre le Canada et les États-Unis (*Canada-United States Joint Radiological Emergency Response Plan*) du 27 juillet 1996. Pour de plus amples informations sur ce Plan, visiter le site web de Santé Canada à l'adresse suivante : http://www.hc-sc.gc.ca/francais/media/communiques/2002/2002_13bk13.htm

de mise à l'abri des populations, etc.), et ceux afférents aux mesures prises pour minimiser les conséquences de l'accident ou les coûts indirects générés par les mesures préventives (par exemple une perte de revenus consécutive à l'évacuation).

S'agissant du premier type de coûts, ils sont dans un certain nombre de pays à la charge de l'exploitant : c'est le cas en **Corée**, en **Finlande**⁹, au **Luxembourg**, en **Pologne**¹⁰, en **Roumanie**, au **Royaume-Uni** et en **Suisse**. Dans ce cas, il peut être posé comme condition que les mesures aient été recommandées ou ordonnées par l'autorité compétente (**Corée, Finlande, Luxembourg, Suisse**). Au **Luxembourg**, en **Pologne** et en **Suisse**, l'exploitant a en outre l'obligation d'indemniser l'intégralité de ces coûts. Dans la plupart des pays considérés (sauf en **Corée**), le coût de ces mesures préventives n'étant pas couvert par l'assurance responsabilité civile nucléaire (par exemple, au **Royaume-Uni** et en **Suisse**), l'exploitant peut être tenu de souscrire une garantie financière, distincte de son assurance responsabilité civile nucléaire, afin de faire face à ces dépenses (à hauteur de 5 millions CHF en **Suisse**¹¹).

Dans d'autres pays, les coûts des mesures préventives en tant que telles sont à la charge d'autres entités que l'exploitant. Ainsi, en **Allemagne**¹², en **Autriche**¹³, en **Belgique**, en **Bulgarie**, au **Canada**¹⁴, au **Danemark**, en **Espagne**, en **France** et en **Suède**, ces coûts incombent aux pouvoirs publics.

En outre, au **Japon** et en **République tchèque**, le coût de ces mesures est partagé entre le Gouvernement (le Ministère de l'Intérieur en **République tchèque**), les autorités locales de la zone affectée et l'exploitant de l'installation nucléaire. Un régime très semblable existe en **Lituanie** où le coût des mesures préventives prises dans un rayon de trois kilomètres autour de la centrale nucléaire d'Ignalina pèse sur l'exploitant de cette centrale à concurrence de l'équivalent en litas de 5 millions USD, les autres mesures préventives étant financées par l'État.

La charge du coût des mesures susceptibles d'être prises par l'exploitant ou l'assureur lui-même en vue d'éviter ou de minimiser les conséquences de l'accident ou les coûts indirects des mesures préventives, incombe en principe à l'exploitant (**Allemagne, Autriche, Belgique, Canada, Corée, France, Irlande, Japon, Luxembourg, Pologne, Royaume-Uni, République tchèque**). Ces coûts peuvent être couverts aux termes du contrat d'assurance responsabilité civile nucléaire (**Canada**¹⁵, **Corée, Pologne**) ; à défaut, l'exploitant peut souscrire une garantie financière distincte (**Allemagne, France**).

9. Sous réserve qu'un accident nucléaire soit survenu, faute de quoi ces coûts pèsent sur le Gouvernement.

10. Sauf si l'exploitant n'est pas tenu responsable.

11. Au-delà de cette limite, les coûts sont financés par l'exploitant à partir de son actif. À signaler que le manque à gagner par suite de l'application de ces mesures n'est pas couvert par l'exploitant.

12. Un recours contre la personne responsable peut toutefois être exercé.

13. Ibid.

14. Une province pourra toutefois rembourser à une municipalité les coûts afférents aux services d'urgence que celle-ci a supportés lors de l'assistance à une zone d'urgence. En outre, le Gouvernement fédéral alloue une assistance financière aux gouvernements provinciaux afin d'aider ceux-ci à payer les coûts dépassant ce qu'ils pouvaient raisonnablement s'attendre à supporter.

15. Pour une description des éléments couverts par l'assurance responsabilité civile, voir la réponse du Canada à la question d), sous le sous-titre 1 du titre I, figurant dans la compilation des réponses au questionnaire reproduite à l'annexe I du présent compte-rendu.

L'**Autriche**, la **Bulgarie** et la **Lituanie**¹⁶ ont établi des fonds nationaux spéciaux pour couvrir ce type de dépenses.

2. Diffusion de l'information sur l'accident

a) *La procédure de transmission des informations entre les différentes autorités concernées au niveau national*

Dans la plupart des pays considérés (**Allemagne, Bulgarie, Danemark, Finlande, Japon, Lituanie, Pologne, Suède, Suisse**), le système de diffusion des informations est en cascade : l'exploitant notifie la situation aux autorités centrales compétentes, à savoir l'autorité de réglementation et de contrôle de l'utilisation de l'énergie nucléaire (**Allemagne, Finlande, Pologne**) ou l'organisme chargé de la gestion des situations d'urgence (**Danemark, Lituanie, Suisse**) ou les deux (**Bulgarie**). Ces autorités répercutent à leur tour l'information aux autres autorités nationales et locales, ces dernières transmettant l'alerte et les informations reçues aux entreprises et résidents de la zone affectée par l'accident.

Toutefois, dans d'autres pays, les premiers interlocuteurs de l'exploitant sont les autorités locales. Ainsi, en **France**, l'autorité territoriale (préfet et préfet maritime) dès qu'elle a connaissance d'un accident adresse la notification aux autorités centrales, à savoir les Ministres de l'Industrie, de l'Intérieur, de la Santé, de la Défense et des Transports, et au Secrétaire général du Comité interministériel de sécurité nucléaire (SGCISN). Les autorités centrales complètent la notification, en précisant notamment les États physiquement affectés et la transmettent au SGCISN en vue d'assurer la notification internationale. Il appartient également au SGCISN d'informer le Président de la République et le Premier Ministre. De même, au **Canada**, aux termes du Plan d'urgence nucléaire de la Province d'Ontario, l'exploitant de l'installation nucléaire notifie en premier lieu l'événement aux autorités municipales ou provinciales spécifiées dans le Plan.

Enfin, dans certains autres pays, la notification est adressée simultanément aux autorités locales et nationales. Ainsi, au **Royaume-Uni**, l'exploitant alerte la police locale et les agences nationales, ces autorités restant par la suite en liaison étroite. Le Ministère du Commerce et de l'Industrie diffuse ensuite l'information aux autres Ministères et aux territoires dépendants par exemple Jersey, Guernsey, Alderney et l'Île de Man. Le *Scottish Executive* est responsable des situations d'urgence survenant en Écosse.

Dans la plupart des pays considérés, il est en outre prévu la désignation ou la mise en place de structures en vue d'assurer la coordination de tout échange ultérieur d'informations entre autorités centrales et locales ainsi que des mesures prises à chacun des niveaux d'intervention. Cet échange d'informations est généralement coordonné au niveau central par les autorités chargées de la gestion nationale de la crise (**Autriche, Canada, Irlande**) ou l'autorité de réglementation et de contrôle de l'utilisation de l'énergie nucléaire (**Roumanie**).

Enfin, une coordination peut être prévue entre les différentes autorités locales (**Bulgarie, Canada, Danemark, Royaume-Uni**). À noter qu'aucun arrangement intercantonal n'existe en **Suisse**.

16. Il s'agit du Fonds de déclassement de la centrale nucléaire d'Ignalina.

S'agissant des moyens utilisés pour assurer la transmission des informations entre autorités nationales ou locales, la télécopie reste le moyen privilégié. Certains pays, dont la **Suisse**, ont en outre mis en place des sites internet à accès restreint en vue de faciliter la communication entre autorités compétentes.

b) La procédure de transmission des informations entre les différentes autorités concernées au niveau international

S'agissant de la notification et de la communication d'informations par le pays de l'accident aux pays voisins susceptibles d'être affectés ainsi que des organisations internationales compétentes, il est à signaler que tous les pays étudiés étant Parties à la Convention de 1986 sur la notification rapide d'un accident nucléaire, ils sont tenus de notifier, directement ou par l'entremise de l'Agence internationale de l'énergie atomique (dans le cadre de son système EMERCON¹⁷), tout accident nucléaire ainsi que de communiquer toute information pertinente aux États qui sont ou sont susceptibles d'être physiquement affectés par un tel accident. Dans le cadre européen, a en outre été institué un système européen d'échange d'informations en cas d'urgence radiologique (ECURIE) qui assure la transmission des informations pertinentes aux États Membres via la Commission européenne. De plus, presque tous les États étudiés, sauf la **Corée**, l'**Irlande**¹⁸ et le **Japon**¹⁹, ont conclu des accords bilatéraux visant à assurer la notification rapide de la survenance d'un accident nucléaire et l'échange d'informations s'y rapportant²⁰ et ont désigné, dans ce cadre, des points de contact.

Les autorités chargées de cette notification dans le pays de l'accident sont généralement soit l'autorité de réglementation et de contrôle de l'utilisation de l'énergie nucléaire (**Allemagne**²¹, **Espagne**²², **Finlande**²³, **Irlande**²⁴, **Royaume-Uni**²⁵), soit l'autorité chargée de la gestion des situations d'urgence nucléaires (**Canada**, **France**, **Suisse**). Ces autorités peuvent parfois être appelées à jouer un rôle concurrent ou complémentaire (**Autriche**, **Lituanie**). La responsabilité d'assurer la transmission des informations peut également être partagée entre plusieurs autorités selon l'organisation en étant destinataire (**Bulgarie**). Certains pays (**Allemagne**, **Belgique**, **France**) ont en outre organisé l'échange d'informations au niveau local au moyen de la conclusion d'accords de coopération entre les différentes autorités locales concernées et leur homologues dans les pays voisins.

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17. Ce système international de notification a été mis en place par l'AIEA en vue d'aider à la mise en œuvre des Conventions de 1986 sur la notification rapide d'un accident nucléaire et sur l'assistance en cas d'accident nucléaire ou de situation d'urgence radiologique.
 18. Un arrangement informel existe toutefois entre l'Irlande et le Royaume-Uni.
 19. Une disposition sur la notification figure toutefois dans un accord sur la sûreté nucléaire conclu entre le Japon et la Chine.
 20. Pour une liste de ces accords, se reporter aux réponses à la question a), sous le sous-titre 2 du titre I de la compilation des réponses au questionnaire reproduite à l'annexe I du présent compte-rendu.
 21. À savoir le Ministère fédéral de l'Environnement, de la Protection de la Nature et de la Sûreté Nucléaire.
 22. À savoir le Conseil de la sécurité nucléaire (CSN).
 23. À savoir l'Autorité de radioprotection et de sûreté nucléaire (STUK).
 24. À savoir l'Institut irlandais de protection radiologique.
 25. À savoir le Ministère du Commerce et de l'Industrie, en coopération avec le Ministère de l'Environnement, de l'Alimentation et des Affaires Rurales.

S'agissant du retour d'informations sur les conséquences radiologiques de l'accident dans les pays voisins vers le pays de l'accident, la plupart des pays font transiter ces informations via les organisations internationales ayant mis en place les instruments d'échanges d'informations susmentionnés. Les accords bilatéraux conclus en la matière prévoient aussi généralement l'intervention soit de l'organisme chargé de la gestion de l'accident nucléaire (**Allemagne, Belgique, Bulgarie, Canada, Suisse**), soit de l'autorité de réglementation et de contrôle de l'utilisation de l'énergie nucléaire (**Espagne, Finlande, Irlande, Pologne, République tchèque**). Le **Japon** ne prévoit, quant à lui, l'échange d'informations que par les voies diplomatiques.

Enfin, ces notifications sont généralement assurées par téléphone, télécopie ou télex.

Au cours des discussions qui se sont tenues sur ce point lors de l'Atelier, il a été souligné que seuls la **Belgique** et le **Royaume-Uni**, en leur qualité de pays les plus susceptibles d'être affectés par les retombées radioactives résultant d'un accident tel que celui simulé à Gravelines, ont été directement contactés par les autorités compétentes françaises tandis que les autres pays ont été tenus informés via l'Agence internationale de l'énergie atomique et la Commission européenne. Le délai nécessaire à cette notification, estimé à deux/trois heures, a en outre été jugé trop long.

c) La diffusion des informations au public

Dans tous les pays ayant répondu au questionnaire, la diffusion au public d'informations sur l'événement et les mesures préventives incombe aux pouvoirs publics, l'exploitant pouvant toutefois être appelé à communiquer des informations sur les conditions existant sur le site. Dans certains pays, dont la **Belgique**, les assureurs participent également, sur une base volontaire, à ce travail de communication.

Quant aux autorités compétentes pour procéder à cette communication, dans la plupart des pays étudiés (**Allemagne**²⁶, **Canada**²⁷, **Corée, Espagne, Finlande**²⁸, **France, Irlande, Japon, Lituanie, Suède, République tchèque**), les autorités centrales et locales agissent concurremment, chacune à son niveau de compétence.

Dans les autres pays (**Autriche, Belgique, Bulgarie, Corée, Danemark, Luxembourg, Roumanie, Royaume-Uni, Suisse**), seules les autorités publiques nationales sont investies de la responsabilité d'informer le public sur l'événement et les mesures de protection à prendre. Il peut s'agir de l'autorité de réglementation et de contrôle de l'utilisation de l'énergie nucléaire (**Bulgarie**²⁹, **Pologne, Roumanie**), de l'organisme chargé de la gestion des situations d'urgence (**Danemark**), ou encore du Gouvernement (**Autriche, Suisse**) ou d'une personne ou entité désignée et agissant pour son compte, par exemple un conseiller technique (**Royaume-Uni**).

Les informations sont généralement communiquées au public au moyen des voies médiatiques traditionnelles (communiqués et conférences de presse, radio, télévision, presse) ainsi que dans de

26. Toutefois, si l'événement survient à l'étranger, seules les autorités fédérales seront compétentes.

27. Pour des détails sur les autorités compétentes selon le lieu de survenance de l'accident et les niveaux d'intervention, se reporter à la réponse à la question d), sous le sous-titre 2 du titre I, figurant dans la compilation des réponses au questionnaire reproduite à l'annexe I du présent compte-rendu.

28. Ibid.

29. La Commission sur l'utilisation de l'énergie atomique à des fins pacifiques agit toutefois en coordination avec le Ministère de la Santé et l'Agence nationale de protection civile.

nombreux pays, dont l'**Allemagne**, l'**Autriche**, la **Bulgarie**, la **Corée**, le **Danemark**, la **Finlande** et l'**Irlande**, au moyen des pages internet. En vue de donner l'alerte dans la zone autour de la centrale, peut également être prévue l'utilisation de systèmes automatisés d'alerte, de hauts-parleurs et de sirènes (par exemple en **Lituanie**), de même que l'aide de la police (par exemple au **Danemark**). Certains moyens d'information sont plus originaux : ainsi en **Pologne**, les informations transmises par le Président de l'Agence nationale de l'énergie atomique paraissent au journal officiel, lequel doit être communiqué aux médias.

3. Intervention de l'assureur de l'exploitant nucléaire

À titre de remarque liminaire, il doit être signalé qu'en **Bulgarie**³⁰, au **Danemark** et en **Lituanie**, les centrales nucléaires ou installations de recherche ne sont pas assurées, l'État couvrant la responsabilité des exploitants de ces installations. Dès lors, les questions figurant dans le questionnaire sous ce titre sont sans objet pour ces pays.

Dans la majorité des pays étudiés (**Allemagne**, **Autriche**, **Belgique**³¹, **Canada**, **Corée**, **France**, **Italie**, **Japon**, **Luxembourg**, **Pologne**, **Royaume-Uni**, **Suède**, **Suisse**, **République tchèque**), il appartiendra à l'exploitant nucléaire de notifier à son assureur l'existence d'une menace ou la survenance d'un accident nucléaire, indépendamment de savoir s'il existe ou non un accord formel prévoyant cette obligation. Celle-ci peut également incomber à l'autorité de réglementation et de contrôle de l'utilisation de l'énergie nucléaire (par exemple en **Finlande**).

L'assureur peut être soumis à une astreinte permanente comme c'est le cas en **Autriche**, en **Belgique**, au **Canada**, en **Corée**, en **Finlande**, en **France**, en **Suède** et en **République tchèque**. En **Italie**, au **Royaume-Uni** et en **Suisse** les assureurs n'y sont en revanche pas soumis.

Dans un grand nombre de pays étudiés (**Belgique**, **Canada**, **États-Unis**, **Finlande**, **France**, **Italie**, **Japon**, **Suède**, **Suisse**, **République tchèque**), l'assureur est en outre mobilisé dès la phase d'alerte. Outre une intervention de l'assureur sur le terrain (pour une description des modalités de cette intervention, se reporter à la sous la section 1 de la partie II *infra*), l'assureur peut également mettre en place une cellule chargée d'évaluer les conséquences en terme de responsabilité civile de la survenance d'un accident nucléaire et de se préparer au traitement des demandes (**Belgique**, **Finlande**, **Italie**, **Japon**), y compris en activant les arrangements permettant un accès immédiat aux fonds nécessaires à l'indemnisation (**Canada**). En **Allemagne** et au **Royaume-Uni**, le besoin de mobiliser le personnel de l'assureur est apprécié en fonction des circonstances.

30. Lorsque le Pool d'assurance nucléaire bulgare aura signé un contrat d'assurance avec l'exploitant de la centrale de Kozloduy, il appartiendra à l'exploitant d'informer l'assureur de la survenance d'un accident nucléaire.

31. Cette responsabilité peut également incomber à l'Agence fédérale de contrôle nucléaire.

II. PHASE D'ACCIDENT – Rejets effectifs, dommages éventuels

1. Méthode et limites de l'intervention de l'assureur sur le terrain dans l'État de l'accident et dans les pays voisins affectés

La plupart des compagnies d'assurance qui couvrent la responsabilité civile des exploitants d'installations nucléaires (en **Allemagne**, en **Autriche**, en **Belgique**, au **Canada** et en **France**³²) envoient dans les zones d'évacuation ou les zones alentours (ou dans certains cas, sur le site de l'accident lui-même) des inspecteurs, des agents des membres du Pool responsables du traitement des demandes en réparation ou des experts indépendants chargés d'évaluer les dommages afin de recenser ou d'enregistrer les personnes ayant subi des dommages ainsi que de faire une première estimation des demandes en réparation à venir et, dans certains pays, de distribuer des aides de premier secours (voir *infra*).

En cas de dommages transfrontières, les compagnies d'assurance (en **Belgique**, en **Espagne**, en **Finlande**, en **France**, au **Japon**, au **Royaume-Uni**, en **Suède**, en **Suisse** et en **République tchèque**) coopèrent avec les services du Pool national d'assurance nucléaire dans les pays voisins (et éventuellement de ses sociétés membres) lesquels servent de correspondants dans les pays voisins affectés. Certains assureurs tels qu'AXA (l'assureur d'EDF) en **France** conditionnent leur intervention à l'action des autorités publiques des États voisins. Cependant, dans certains pays (par exemple en **Allemagne**³³), aucun arrangement n'existe à l'heure actuelle entre l'assureur national et des assureurs des pays voisins en vue de collaborer en cas de dommages transfrontières.

Dans tous les pays ayant répondu au questionnaire, l'assureur de l'exploitant nucléaire n'a pas de pouvoirs spécifiques visant à assurer la protection des personnes évacuées, cette tâche appartenant généralement aux autorités publiques (voir *supra*).

2. Les aides de premiers secours

Bien que certains pays (**Finlande**, **Japon**, **Lituanie**) ne prévoient pas d'aides financières de premier secours, la majorité des pays ayant répondu au questionnaire ont mentionné la possibilité d'organiser le paiement de telles aides, à titre d'avance sur l'indemnisation future, selon les circonstances et la gravité de l'accident.

Par exemple, en **Allemagne**, en **Autriche**, en **Belgique**, en **Corée**, au **Danemark**, en **France**, au **Luxembourg**, aux **Pays-Bas**, au **Royaume-Uni**, en **Suède**, en **Suisse** et en **République tchèque**, ces aides ne sont généralement pas prévues expressément par la loi mais peuvent être distribuées sur une base volontaire par l'assureur ou l'État.

Au **Canada**, il existe une disposition spécifique traitant de ces aides à l'article 30 sous la partie II de la Loi sur la responsabilité nucléaire (qui régit les accidents nucléaires de grande ampleur)

32. Dans le cadre du scénario de l'accident de Gravelines, le nombre de personnes mobilisées auprès de l'assureur français aurait dû être dans la première semaine 100 personnes pour 8 000 personnes évacuées. L'assureur participe en outre à la cellule de crise de la Préfecture du lieu de l'accident.

33. Toutefois, dans le cas d'un accident nucléaire en Allemagne, une compagnie d'assurance implantée à l'étranger (une filiale d'une compagnie d'assurance allemande ou une compagnie affiliée, etc.) serait responsable non seulement de vérifier les faits mais aussi d'évaluer les demandes en réparation en vertu du droit allemand.

lequel précise qu'à la suite du dénuement des victimes, de leurs souffrances ou d'autres épreuves consécutives à un accident nucléaire, le Gouvernement, s'il le juge nécessaire, peut allouer une assistance financière provisoire aux personnes affectées. Aux termes de la partie I de la Loi, la police d'assurance ne renvoie pas à ces aides mais l'Association canadienne d'assurance nucléaire (*Nuclear Insurance Association of Canada* – NIAC) indique qu'elles seront versées conformément au Manuel des plaintes de l'Association dans le contexte de la définition des dommages aux biens fournie par la police.

Dans la plupart des pays (**Allemagne, Belgique, Corée, France, Luxembourg, Pays-Bas, Pologne, Suède, Suisse, République tchèque**), cette aide est conçue pour couvrir les dépenses médicales et les coûts afférents au transport, au relogement temporaire et à l'alimentation des personnes évacuées. Au **Canada**, les dépenses médicales sont couvertes par les régimes provinciaux d'assurance-santé ; par conséquent, il est peu probable que les victimes demandent des aides de premier secours en vue de couvrir ces coûts. Les autres types de dépenses couvertes sont principalement les dépenses de subsistance (**Royaume-Uni, Suisse**) et d'assistance psychologique (**France, Luxembourg**).

Dans la majorité des pays interrogés, le montant alloué pour ces aides de premier secours dépend de la gravité de l'accident et de la situation dans laquelle se trouvent les victimes (**Allemagne**³⁴, **Autriche, Belgique, Corée, Luxembourg, Pologne, Suède, Suisse**³⁵, **Royaume-Uni, République tchèque**) et aucun montant maximum n'est fixé si ce n'est celui qui résulte directement de la responsabilité limitée de l'exploitant nucléaire et de la couverture d'assurance disponible aux termes de la police pertinente. Toutefois, dans certains pays, un montant maximum est déjà fixé (en **France**³⁶ et en **Italie**, en vertu du contrat conclu entre l'exploitant nucléaire et l'assureur) ou peut être fixé à la suite d'un accident (en **Belgique** par la Commission des sinistres).

Les pratiques diffèrent encore s'agissant de l'allocation ou non d'une somme forfaitaire. En **Belgique**, au **Canada**, en **France**, aux **Pays-Bas** et au **Royaume-Uni**, ces aides prennent généralement la forme d'une somme forfaitaire alors qu'en **Allemagne**, au **Luxembourg**, en **Pologne**, en **Suède**, en **Suisse** et en **République tchèque**, ce n'est pas nécessairement le cas : il peut y avoir une composante en nature ou ces aides peuvent correspondre au remboursement sur justificatifs des coûts subis.

Rares sont les pays qui ont déjà déterminé à l'avance les formalités nécessaires en terme de critères de paiement. En **Belgique**, aux **Pays-Bas** et en **République tchèque**, il est nécessaire pour les victimes de présenter un formulaire spécial dûment complété. La plupart des pays exigeront la présentation de certaines formes d'identification personnelle. Les exigences relatives à la preuve, au lien de causalité, etc. sont diverses : l'**Allemagne** exige que la victime démontre la probabilité d'un dommage causé par un événement nucléaire³⁷ tandis qu'en **Corée**, en **Italie**, au **Luxembourg** et en **Suisse**, une indication minimale d'un dommage doit être démontrée ou certains éléments de preuve apportés. Enfin, le versement de l'aide se fait généralement contre signature d'une quittance (par exemple en **Allemagne** et aux **Pays-Bas**).

34. Le montant est toutefois généralement de l'ordre de 500 EUR.

35. Ce montant serait compris entre 500 et 1 000 CHF (341 à 682 EUR).

36. Le montant est limité à 762 EUR par personne ou 6 098 EUR par famille.

37. Ce droit à une aide est confirmé par l'autorité administrative présente au niveau des Länder.

Les modalités de paiement de l'aide sont également variées : la plupart des pays (**Allemagne, Belgique, Canada, Corée, France, Luxembourg, Royaume-Uni, Suède, Suisse, République tchèque**) utilisent des versements en espèce ou des chèques (ce qui requiert dans ce cas la coopération des banques afin d'honorer rapidement les chèques). D'autres pays font état d'une combinaison de paiements en liquide et de contributions en nature sous la forme de logement ou de transport prépayés (**Suède, République tchèque**). Les traites ou transferts bancaires peuvent aussi être utilisés en **France** et en **Suisse**. Certains pays (**Belgique, Canada, Corée, Royaume-Uni, Suède, Suisse**) désignent également au préalable un compte afin de faciliter le traitement des demandes d'aide de premiers secours.

Il n'existe pas de tendance générale s'agissant de la procédure de diffusion de l'information sur les aides de premier secours au public. Il semble que dans un certain nombre de pays, aucune disposition spécifique ne régit cela et que par conséquent il appartient aux autorités publiques compétentes, en coordination avec l'exploitant, de décider de la façon de procéder. Certains États prévoient que cette information sera diffusée directement par l'exploitant (**Corée, République tchèque**), par l'exploitant et l'assureur agissant conjointement (**Suède**), par le pool d'assurance (**Belgique**), par les autorités publiques (**Canada**³⁸, **Danemark**³⁹, **France**⁴⁰, **Luxembourg, Suisse**⁴¹) ou encore par les autorités locales et nationales et l'exploitant conjointement (**Allemagne, Royaume-Uni**).

De nombreux canaux médiatiques sont utilisés pour transmettre ces informations, allant de la presse, la radio, la télévision, le télétexte, le téléphone aux autorités de police ou encore l'utilisation d'internet et des messages électroniques.

Les informations reçues sur les arrangements en vigueur pour distribuer les aides de premier secours et diffuser les informations y relatives aux populations des *pays voisins* sont très similaires dans la forme et le contenu aux questions précédentes se rapportant à la coopération générale avec les autorités publiques et les assureurs à l'étranger.

III. PHASE POST-ACCIDENTELLE

1. Diffusion de l'information

a) Diffusion de l'information sur le régime de réparation disponible pour les dommages nucléaires

La plupart des pays qui ont répondu au questionnaire n'ont pas adopté dans leur législation de dispositions expresses régissant la question de la diffusion des informations dans ce domaine. Des questions leur avaient été posées concernant la diffusion d'informations sur :

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- 38. Au Canada, la diffusion est coordonnée entre l'Association canadienne d'assurance nucléaire ou la Commission des réparations des dommages nucléaires, les gouvernements et l'exploitant nucléaire.
 - 39. L'Agence danoise pour la gestion des situations d'urgence.
 - 40. En France, cette information est diffusée par les préfets, une fois ceux-ci informés par l'exploitant et l'assureur.
 - 41. Le Conseil fédéral.

- le régime de la responsabilité civile nucléaire en vigueur ;
- le droit à réparation des dommages éventuels ;
- la couverture financière ;
- l'identité de l'assureur ;
- le rôle de l'État ;
- les démarches à entreprendre pour présenter une demande en réparation, notamment les lieux où retirer les formulaires et les délais de soumission.

La tendance générale dans les pays ayant un programme électronucléaire est d'impliquer étroitement l'exploitant et l'assureur dans la diffusion de ces informations. Ainsi, en **Belgique**⁴², au **Canada**⁴³, en **Finlande**, en **France**, aux **Pays-Bas** et au **Royaume-Uni**, la responsabilité de la diffusion des informations est partagée entre les autorités centrales et/ou locales (y compris occasionnellement les tribunaux), l'exploitant responsable et l'assureur. En **Suède** et en **République tchèque**, l'exploitant responsable et son assureur sont au premier chef responsables, l'État et les autorités locales jouant un rôle auxiliaire. En **Corée**, il appartient à l'exploitant seul de diffuser des informations sur tous les éléments susvisés. Dans certains pays nucléaires, les autorités publiques peuvent toutefois être seules investies de cette mission (**Allemagne**⁴⁴, **Japon**, **Lituanie**⁴⁵, **Suisse**). C'est également le cas en **Bulgarie**⁴⁶, à l'exception des informations sur l'identité de l'assureur, lesquelles sont communiquées par l'exploitant.

Dans les pays non nucléaires, ce sont généralement les autorités publiques et, occasionnellement, les tribunaux qui assument ce rôle. Par exemple, en **Autriche**, le Ministère fédéral de la Justice est responsable de la diffusion des informations sur toutes les catégories susvisées, à l'exception de l'identité de l'assureur (qui est communiquée par l'exploitant responsable) et les démarches à entreprendre pour présenter une demande en réparation, pour lesquelles les tribunaux jouent un rôle complémentaire à celui du Ministère. Au **Danemark**, en **Irlande**⁴⁷, au **Luxembourg** et

42. À noter qu'en Belgique, la question n'est pas fixée par la réglementation.

43. Pour une description de la procédure de coordination au Canada, voir la réponse à la question a), sous le sous-titre 1 du titre III, de la compilation des réponses au questionnaire reproduite à l'annexe I du présent compte-rendu.

44. En Allemagne, les Länder et le Gouvernement fédéral se partagent cette responsabilité. Les autorités d'intervention d'urgence des Länder sont au premier chef responsables ; toutefois, en cas d'événements ou accidents transfrontières survenus à l'étranger, le Gouvernement fédéral interviendra également. Dans le cas d'un accident nucléaire de grande ampleur, un bureau public central sera mis en place pour diffuser des informations sur ces questions.

45. L'organisme responsable en Lituanie est le Centre d'information placé sous l'autorité du Centre de surveillance des informations du Premier Ministre.

46. L'autorité responsable au premier chef est le Ministère de la Justice. Des informations complémentaires sont également transmises par la Commission sur l'utilisation de l'énergie atomique à des fins pacifiques s'agissant des droits à réparation et le Conseil des Ministres s'agissant de la couverture financière.

47. L'autorité compétente est le Comité de coordination de l'intervention en cas d'urgence (*Emergency Response Co-ordination Committee*).

en **Pologne**⁴⁸, l'État et les différentes autorités publiques assument ce rôle eu égard à toutes les catégories susvisées.

Les réponses à la question de savoir si les victimes des *pays voisins* reçoivent les mêmes informations sont variées. En **Allemagne**, en **Belgique**, en **Bulgarie**, au **Canada**⁴⁹, en **Finlande**⁵⁰, en **France**, au **Royaume-Uni**, en **Suisse** et en **République tchèque**, la réponse à cette question est positive. Au **Japon**, bien que le Gouvernement n'ait aucune obligation juridique de diffuser ces informations à l'étranger, il est probable qu'il le fasse. Il n'existe pas encore de disposition régissant cette communication en **Corée**, en **Lituanie**, en **Pologne** et en **Suède**.

Ces informations sont généralement communiquées au moyen de communiqués de presse et des voies médiatiques traditionnelles, ou, dans certains pays (en **Belgique** par exemple), via un site web contenant un questionnaire et un modèle de déclaration des dommages.

b) Actions de l'assureur pour se faire connaître

Les pays étaient invités à fournir des informations sur le point de savoir si l'assureur se fait immédiatement connaître auprès des autorités sanitaires nationales des pays voisins affectés, s'il fournit aux établissements de soins les coordonnées de son correspondant dans ce pays et s'il prend des mesures pour se faire directement connaître des victimes. Un certain nombre de pays (**Japon, Lituanie, Pologne**) ont répondu qu'il n'existe pas de telles règles en vigueur. Certains pays (**Allemagne, Autriche, Finlande, Royaume-Uni, Suède, Suisse**) ont répondu positivement à la plupart de ces questions alors que d'autres (**Belgique, Canada, Corée, France, République tchèque**) ont confirmé qu'il n'existe pas de telles mesures transfrontières, indiquant souvent qu'il appartient à l'exploitant de communiquer des informations au public sur l'identité de l'assureur et la manière dont les demandes en réparation peuvent être traitées.

2. La gestion des demandes en réparation

a) Personnes responsables et coût du traitement des demandes

Dans la plupart des pays, l'exploitant (**Belgique, Bulgarie, Japon, Luxembourg**), l'assureur travaillant parfois avec les experts chargés d'évaluer les dommages (**Finlande, France, Pays-Bas**⁵¹, **Royaume-Uni, Suisse**⁵², **République tchèque**) ou l'exploitant et l'assureur travaillant en tandem

48. En Pologne, les informations sur les sujets susvisés sont diffusées par le Président de l'Agence nationale de l'énergie atomique.

49. Le Canada a mis en place des arrangements spéciaux avec les États-Unis. Voir le Plan d'intervention conjoint en cas d'urgence radiologique signé entre le Canada et les États-Unis le 27 juillet 1996.

50. En Finlande, où le Pool finlandais d'assurance atomique est l'assureur, les informations sont diffusées aux pays voisins via les Pools de réassurance sur la base des Règles contractuelles type de réassurance. L'État se coordonne avec l'assureur pour s'assurer que les victimes à l'étranger ont reçu toutes les informations nécessaires.

51. Sauf certains cas de demandes en réparation.

52. Aux termes d'un contrat conclu avec l'État suisse, l'assureur est également chargé de la gestion des demandes dont le montant dépasserait le montant de la garantie financière.

(**Autriche, Japon, Luxembourg, Suède**⁵³) sont responsables de l'enregistrement et du paiement des demandes en réparation⁵⁴. En **Allemagne**, les demandes sont traitées dans un premier temps par l'assureur pour les demandes ne dépassant pas le montant assuré, puis par l'exploitant ou sa société mère, le Gouvernement et les Länder pouvant également être appelés à intervenir dans le cadre de la garantie de l'État. De plus, toute indemnisation accordée par l'une de ces trois entités doit être approuvée par un comité composé de représentants de l'exploitant, l'assureur et l'État. Au **Danemark**, il appartient à l'État de traiter ces demandes conformément aux règles de droit commun de la responsabilité quasi-délictuelle. Au **Canada**, la NIAC est responsable, en application de la partie I de la Loi sur la responsabilité nucléaire, en vertu des termes de la police d'assurance et de l'accord de réassurance ; s'il est prévu que les dommages dépassent 75 millions CAD, la partie II de la Loi s'applique et la Commission des réparations des dommages nucléaires est alors compétente (bien que la NIAC puisse rester tenue d'administrer ces demandes)⁵⁵. En l'absence de règlement à l'amiable, les victimes peuvent porter l'affaire devant les tribunaux (en **Allemagne**, en **Autriche**, en **Bulgarie**, au **Canada**, au **Danemark**, en **France**, au **Japon**⁵⁶). Dans certains pays (**Corée, Pays-Bas**⁵⁷, **Pologne**), seuls les tribunaux seront compétents pour statuer sur les demandes à réparation⁵⁸.

Tandis que dans certains pays (**Belgique, Corée, République tchèque**) l'interface entre les procédures d'indemnisation directe par l'assureur et le tribunal compétent saisi d'actions en réparation n'est pas organisée, d'autres pays (**Bulgarie, Finlande, Japon**) habilite les tribunaux à en fixer les modalités. S'agissant du versement de la réparation, en cas de litige porté devant un tribunal, les assureurs peuvent décider de verser le montant de la réparation non contesté (**Suisse**) avant même le rendu de la décision de justice ; le paiement de la réparation peut toutefois être suspendu jusqu'au rendu du jugement (**Japon**). Enfin, au **Canada**, la victime, une fois satisfaite de la réparation allouée par l'assureur, doit signer une décharge par laquelle elle abandonne son droit de recours auprès des tribunaux.

Les coûts du traitement des demandes pèsent en général sur l'exploitant (**Bulgarie, Corée, France, Luxembourg**) ou l'assureur à hauteur d'une certaine limite (**Allemagne, Belgique, États-Unis, Finlande**⁵⁹, **Japon, Pays-Bas, Royaume-Uni**⁶⁰, **Suède, Suisse**⁶¹, **République tchèque**) ou sur

53. Les victimes peuvent également saisir immédiatement les tribunaux.

54. À signaler l'originalité de la procédure ukrainienne d'indemnisation des dommages nucléaires aux termes de laquelle la victime exerce son droit à réparation en concluant avec l'exploitant un accord d'indemnisation d'un dommage nucléaire. En cas de litige, celui-ci est réglé par voie judiciaire. Voir article 5 de la Loi sur la responsabilité civile en matière de dommage nucléaire et les garanties financières y afférentes, reproduite dans le Supplément au *Bulletin de droit nucléaire* n° 69.

55. Pour une description détaillée de cette procédure, voir la réponse à la question h) sous le sous-titre 3 du titre III, figurant dans la compilation des réponses au questionnaire reproduite à l'annexe I du présent compte-rendu.

56. Ce recours peut également être exercé devant le Comité de règlement des différends pour la réparation des dommages nucléaires.

57. Dans le cas où les demandes en réparation sont très importantes, la Cour de La Haye fait interdiction aux assureurs de payer la réparation et désigne un juge spécial pour traiter ces demandes.

58. Pour une description de la procédure suivie devant les tribunaux, voir *infra* sous le point 5.

59. Les coûts du traitement en interne des demandes sont supportés par le Pool. Les coûts externes (par exemple les frais d'expertise) sont couverts par une somme distincte assurée au sein de la police de responsabilité civile nucléaire. Lorsque ce montant d'assurance distinct est épuisé, les coûts seront supportés par l'exploitant.

60. Au Royaume-Uni, au-delà de la limite de réparation prévue par l'assurance, l'État assume ces coûts.

l'un ou l'autre (**Autriche**). Au **Canada**, aux termes de la partie I de la Loi sur la responsabilité nucléaire, les coûts du traitement des demandes sont inclus dans la limite de responsabilité de l'assureur ou le Ministre rembourse la NIAC de ces coûts, alors qu'aux termes de la partie II, les coûts du traitement des demandes pèsent sur le Gouvernement canadien. Au **Danemark**, l'État assume les coûts du traitement des demandes.

b) Le recensement et l'identification des victimes et l'évaluation des dommages

En réponse à la question de savoir comment les victimes potentielles sont identifiées ou recensées dans l'État de l'accident et dans les États voisins affectés, un certain nombre de pays (**Autriche, Bulgarie, France, Suède**)⁶² ont expliqué que des experts sont envoyés sur le terrain à cette fin. Au **Canada** et en **Finlande**, une base de données contenant les demandes est établie par respectivement les experts chargés d'évaluer les dommages et le Pool d'assurance. Au **Danemark** et en **République tchèque**, ce sont les autorités étatiques qui s'acquittent de cette tâche. La législation **japonaise** dispose expressément que la partie assurée, c'est-à-dire l'exploitant, est tenue de notifier immédiatement à l'assureur l'identité de tout témoin potentiel⁶³. En **Suisse**, un questionnaire type⁶⁴ fait l'objet d'une large diffusion à cette fin. Au **Royaume-Uni**, les victimes ou les ayants-droits sont tenus de s'enregistrer auprès des bureaux de gestion des demandes de l'assureur.

Certains pays (**Autriche, Belgique, Bulgarie, Corée, Suisse**) ont expressément prévu un système permettant une estimation initiale de l'étendue des dommages. Dans d'autres pays (**Canada, Finlande, France**) un tel système n'a pas été spécifiquement instauré mais serait probablement organisé par l'assureur en coordination avec les autres autorités compétentes.

Les États semblent avoir des pratiques très variées en terme de mobilisation des experts qualifiés (par exemple, dans le domaine agricole) en vue de mener l'évaluation des dommages. Cela peut être organisé par l'assureur, l'exploitant, la société mère de l'exploitant, les autorités publiques, les tribunaux ou au moyen du plan d'intervention d'urgence. Des comités d'experts sont souvent institués à cette fin.

Lorsque la pratique du *loss adjustment* existe, le pouvoir de décision des experts habilités par l'assureur à évaluer les dommages est régi par les termes du contrat conclu entre l'exploitant et l'assureur ou l'éventuel accord entre l'État et l'assureur (**Allemagne, Finlande**). Quant aux tribunaux, c'est en toute indépendance qu'ils sont appelés à statuer sur les demandes en réparation engageant des fonds publics (**Belgique, Finlande**).

c) Les types de dommages indemnifiables

Les procédures relatives à la détermination des types de dommages ouvrant droit à réparation sont très rationalisées. Dans la plupart des pays (**Allemagne, Autriche, Belgique, Bulgarie, Canada, Corée, France, Japon, Suède**), l'assureur détermine en premier lieu ces types de dommages et, dans

61. En Suisse, ces coûts incombent parfois à l'État selon le type de dommage.

62. Par l'organisation du traitement des demandes de l'assureur.

63. Article 12 des Conditions générales entre l'assureur et la partie assurée : « Obligations lors de la survenance d'un accident ».

64. Un exemplaire de ce questionnaire est reproduit à l'appendice 2 de la compilation des réponses au questionnaire *infra*.

le cas où le requérant n'est pas satisfait de la décision de l'assureur, l'affaire est portée devant les tribunaux. Le droit de la responsabilité civile nucléaire applicable est utilisé par l'assureur et les tribunaux pour déterminer ces types de dommages. En **Finlande** et en **Suisse**, c'est l'assureur qui est responsable de la détermination des types de dommages indemnifiables alors qu'au **Luxembourg**, au **Royaume-Uni** et en **République tchèque**, cette question est tranchée par les tribunaux. Au **Danemark**, l'État est au premier chef appelé à statuer sur cette question et, si la décision est contestée, les tribunaux sont saisis de l'affaire.

Certains types de dommages sont (presque) toujours couverts. C'est le cas par exemple des dépenses relatives à l'évacuation et au logement du public qui sont indemnifiées en **Allemagne**, en **Autriche**, en **Belgique**, en **Bulgarie**, au **Canada**, en **Corée**, au **Danemark**, en **Finlande**, en **France**, au **Japon**, au **Luxembourg** et en **Pologne**. La plupart des pays (**Allemagne**, **Autriche**, **Belgique**, **Bulgarie**, **Canada**⁶⁵, **Corée**, **Danemark**, **Finlande**, **France**, **Luxembourg**, **Pologne**, **Royaume-Uni**, **Suède**⁶⁶, **Suisse**, **République tchèque**) indemnisent également la perte de la vie et les préjudices corporels et les dommages aux biens. Certains indemnisent les pertes économiques consécutives aux préjudices corporels ou aux dommages aux biens (**Allemagne**, **Canada**, **Danemark**, **France**, **Suède**, **Suisse**). La perte de revenu est indemnisée dans presque tous les pays tant qu'elle est la conséquence directe de l'accident nucléaire, telle que le sont les dépenses médicales. La situation, s'agissant de la perte économique pure, est variable et seuls certains pays prévoient explicitement la réparation de ces dommages (**Suède**⁶⁷). Au **Japon**, tous les types de dommages sont soumis à réparation tant qu'il existe un lien de causalité raisonnable entre le dommage subi et l'exposition aux rayonnements.

Dans tous les pays ayant répondu au questionnaire, les dépenses de décontamination sont couvertes.

Les dommages à l'environnement peuvent être indemnisés en **Autriche**, en **Bulgarie**, en **Corée**, au **Danemark**, au **Luxembourg**, en **Pologne** et en **République tchèque**. Au **Canada**, ce type de dommage n'est pas expressément prévu et il appartiendra aux tribunaux d'en décider. En **Belgique**, en **Finlande** et en **France**, ce type de dommage n'est pas prévu dans le cadre législatif actuel. En **Allemagne**, en **Irlande**, en **Suède** et en **Suisse**, les dommages à l'environnement en eux-mêmes ne sont pas indemnisés mais ils peuvent être compris dans les dommages aux biens.

Dans la plupart des pays⁶⁸, à l'exception du **Luxembourg**, les dommages immatériels tels que la perte de réputation ou le préjudice d'image⁶⁹ ne sont pas réparés.

Dans tous les pays ayant répondu au questionnaire, le coût des mesures préventives prises après la survenance de l'accident nucléaire peut être indemnisé.

Dans la majorité des pays ayant répondu au questionnaire, il n'existe pas de système de priorité dans le traitement des demandes (**Autriche**, **Belgique**, **Corée**, **Danemark**, **Finlande**, **Japon**,

65. Les préjudices tant corporels que psychologiques sont couverts.

66. Ibid.

67. Dans certaines circonstances seulement.

68. Il est prévu de modifier la législation allemande pour permettre la prise en compte de ces dommages. Voir la réponse de l'Allemagne à la question g), sous-titre 3 du titre III, de la compilation des réponses au questionnaire reproduite à l'annexe I du présent compte-rendu.

69. À l'exception des souffrances physiques et mentales qui sont indemnifiées dans un certain nombre de pays.

Luxembourg, Royaume-Uni, Suède, Suisse, République tchèque). En revanche, en **Bulgarie** et en **France**, l'indemnisation des dommages corporels est prioritaire et, en **Allemagne** et au **Canada**, bien qu'un tel système de priorité n'existe pas encore, la loi permet d'en instaurer un.

En cas de dépassement des montants d'indemnisation disponibles aux termes de la garantie financière, un certain nombre de pays interrogés prévoient que les montants de réparation à allouer seront soumis à une réduction proportionnelle (**Autriche, Canada, Danemark, Finlande, Pologne**⁷⁰, **Suède**) ou qu'un certain pourcentage de la limite de responsabilité de l'exploitant (10 % en **Bulgarie**) sera conservé pour être en mesure d'indemniser les demandes à venir. Certains autres pays prévoient le vote par le Parlement de la mise à disposition de fonds supplémentaires (**Canada, Royaume-Uni**⁷¹). Enfin, dans certains des pays ayant un régime de responsabilité illimitée, c'est au Gouvernement (**Japon, Suisse**⁷²) ou à l'exploitant (**Corée, Suisse**⁷³) qu'il peut incomber de payer la différence.

*d) Le suivi des dossiers d'indemnisation à moyen et à long terme à la charge de l'assureur*⁷⁴

Sur l'ensemble des pays ayant répondu au questionnaire, seules la **Finlande**⁷⁵ et la **Suisse**⁷⁶ font état de la conclusion par l'assureur de l'exploitant nucléaire responsable de conventions de gestion de sinistres à moyen et long terme. D'autres pays (**Belgique, France, Royaume-Uni**) mentionnent toutefois la possibilité d'adopter de telles conventions.

Dans la plupart des pays interrogés, à l'exception de la **Suisse**, les établissements de soins et hôpitaux ne sont pas autorisés, en vertu du respect du secret médical, à communiquer à l'assureur de l'exploitant des informations sur l'évolution du traitement des victimes ; les victimes sont toutefois libres de transmettre directement ces informations à l'assureur.

Sous réserve de quelques différences mineures, le suivi des dossiers d'indemnisation à moyen et à long terme est généralement assuré par les mêmes autorités que celles traitant des demandes en réparation. Il s'agira principalement de l'exploitant (**Luxembourg**⁷⁷), du Pool d'assurance nucléaire (**Belgique, Finlande, Japon**⁷⁸, **Royaume-Uni, Suisse**) ou encore des deux conjointement (**Allemagne, Suède**) ; au **Danemark**, ce suivi incombera à l'État et au **Canada** à la Commission des réparations des dommages nucléaires. Cette question ne fait par ailleurs l'objet d'aucune réglementation en **Autriche** et en **République tchèque**.

70. Uniquement pour la réparation des dommages aux biens ou à l'environnement.

71. Après épuisement de la deuxième tranche de réparation aux termes de la Convention complémentaire de Bruxelles, c'est-à-dire des fonds publics.

72. Pour les sommes entre 700 millions et 1 milliard CHF.

73. Pour les sommes au-delà de 1 milliard CHF, la réparation sera payée à partir des avoirs de l'exploitant.

74. Les questions qui suivent sont sans objet pour la Bulgarie et la Lituanie. Voir remarque sous la section 3 de la première partie de cette analyse.

75. De telles conventions ont été conclues avec les Pools de réassurance à l'étranger.

76. Cette convention ne concerne toutefois que l'État suisse et le Pool suisse des assureurs nucléaires.

77. En cas de saisine des tribunaux, ces derniers seront responsables du suivi des dossiers.

78. Jusqu'à épuisement de la garantie financière.

3. Interface avec le régime d'indemnisation des travailleurs⁷⁹

Dans la majorité des pays ayant répondu au questionnaire, les travailleurs irradiés doivent adresser leur demande en réparation des dommages subis à la suite de l'accident à l'assureur des accidents du travail (**Allemagne**⁸⁰, **Autriche**, **Belgique**, **Corée**, **Danemark**, **Finlande**, **France**, **Italie**, **Japon**, **Pologne**⁸¹, **Suède**⁸², **Suisse**), à l'employeur (**République tchèque**) ou aux deux (**Bulgarie**). Dans de rares cas, ces demandes seront adressées à l'exploitant responsable (**Luxembourg**, **Pologne**⁸³). En revanche, il peut être prévu que les travailleurs puissent s'adresser soit dans un deuxième temps (**Belgique**) soit alternativement (**Japon**, **Suède**) à l'assureur de l'exploitant nucléaire. Selon l'autorité saisie des demandes, le droit applicable sera soit le droit du travail et/ou le droit de la sécurité sociale s'il appartient à l'employeur ou à l'assureur des accidents du travail de déterminer le montant de la réparation à allouer⁸⁴ soit la loi nationale régissant la responsabilité civile nucléaire si la demande est portée devant l'exploitant nucléaire ou son assureur.

Dans un certain nombre de pays étudiés (**Finlande**, **Italie**, **Luxembourg**, **Suisse**, **République tchèque**), l'assureur des accidents du travail a un droit de recours général contre l'exploitant de l'installation où s'est produit l'accident en vue du remboursement de la réparation allouée aux travailleurs exposés en vertu du régime d'assurance des accidents du travail. Dans d'autres pays, ce droit est assorti de conditions : il faut que les dommages résultent d'une faute inexcusable de l'exploitant (**France**) ou qu'ils aient été causés intentionnellement ou suite à un cas de négligence grave (**Allemagne**, **Japon**) ou encore que les victimes soient des agents de l'État (**Belgique**). Enfin, un tel droit de recours n'existe pas en **Bulgarie**, en **Corée**, au **Danemark** et en **Suède**.

Dans la plupart des pays ayant répondu au questionnaire, si le montant des dommages subis dépasse la limite de réparation prévue par la législation sur le régime d'assurance des accidents du travail (**Belgique**, **Bulgarie**, **Canada**, **France**, **Japon**, **Luxembourg**, **Pologne**, **Suède**, **Suisse**) ou si certains types de dommages ne sont pas couverts par la législation des accidents du travail (**Danemark**), les travailleurs exposés peuvent s'adresser à l'exploitant pour obtenir la différence ou la réparation des dommages non couverts. En **Autriche**, aucune limite de réparation n'étant fixée par la législation, la question est sans objet.

79. Sur ce sujet, voir l'étude réalisée par le Secrétariat de l'AEN : « Régimes d'indemnisation applicables aux travailleurs exposés aux rayonnements ionisants dans les pays de l'OCDE », publiée dans le *Bulletin de droit nucléaire* n° 66 (décembre 2000), p. 7. Voir également la contribution de M. Jacques Deprimoz au Nuclear Inter Jura 1993 (Congrès bi-annuel de l'Association internationale du droit nucléaire) – Actes du Congrès, p. 169.

80. Les dommages aux biens des travailleurs sont en revanche indemnisés conformément à la Loi sur l'énergie atomique.

81. Si l'exploitant est une entreprise publique.

82. Pour une description des différents types d'assurance existants, voir la réponse à la question a) sous le sous-titre 5 du titre II, figurant dans la compilation des réponses au questionnaire reproduit à l'annexe I du présent compte-rendu.

83. Si l'exploitant est une compagnie privée.

84. En Corée, au Danemark et en Suisse, cette réparation sera accordée sur la base de respectivement le droit de l'assurance de la réparation des catastrophes, la Loi sur la protection contre les conséquences des dommages industriels ou la Loi suisse sur l'assurance accident.

4. L'exercice des recours en réparation

Dans la plupart des pays (**Canada**, **Corée**⁸⁵, **Danemark**, **Finlande**, **France**⁸⁶, **Pologne**⁸⁷, **Royaume-Uni**⁸⁸, **Suède**⁸⁹, **République tchèque**), le délai de prescription pour introduire des demandes en réparation est de trois ans à compter de la date à laquelle la victime a eu connaissance du dommage et de l'identité de la personne responsable et de dix ans à compter de la date de l'accident. En **Allemagne** et en **Autriche**, le second délai est fixé à 30 ans tandis que le premier est similaire. Certains pays (par exemple la **Belgique**) introduisent une distinction selon qu'il s'agit de dommages matériels pour lesquels le délai est fixé à 10 ans ou corporels, le délai étant alors prolongé jusqu'à 30 ans. Enfin, certains pays n'instituent qu'un seul délai fixé soit à cinq (**Bulgarie**) ou trois ans (**Suisse**) à compter de la date à laquelle la victime a eu connaissance du dommage et de l'identité de la personne responsable, ou à 20 (**Japon**) ou 30 ans (**Luxembourg**) à compter de la date de l'accident.

Peu nombreux sont les pays étudiés (**Canada**, **États-Unis**, **Luxembourg** et **Royaume-Uni**) qui prévoient la possibilité de regrouper les demandes en réparation (« *class actions* »)⁹⁰. Cependant, si en **Autriche**, en **Bulgarie** et au **Japon** la procédure de « *class action* », telle qu'on l'entend aux États-Unis, n'existe pas, des actions jointes sont possibles. En outre, en cas d'accident nucléaire en **Allemagne** ou au **Royaume-Uni**, les tribunaux seraient certainement appelés à statuer sur des affaires ayant valeur de test avant d'examiner le reste des demandes.

Dans un certain nombre de pays ayant répondu au questionnaire, il existe une possibilité de recours direct contre l'assureur de l'exploitant tant dans l'État de l'accident (**Autriche**, **Belgique**, **Bulgarie**⁹¹, **Corée**, **Finlande**, **France**, **Pologne**, **Suède**, **Suisse**, **République tchèque**) que dans les pays voisins (**Belgique**⁹², **Corée**, **Finlande**, **France**, **Pologne**, **Suède**, **Suisse**⁹³). Ce droit n'existe toutefois pas en **Allemagne**, au **Canada**, aux **États-Unis**, en **Irlande**, au **Japon**, au **Luxembourg**, aux **Pays-Bas** et au **Royaume-Uni**. Lorsqu'une telle possibilité n'est pas prévue, les victimes résidant à l'étranger doivent présenter leurs demandes à l'exploitant nucléaire (**Allemagne**, **Japon**, **Luxembourg**, **Suisse**) ou intenter une action devant les tribunaux de l'État de l'accident (**Canada**⁹⁴).

À la question de savoir si l'État de résidence des victimes peut aider celles-ci à présenter leurs demandes en réparation, les réponses apportées sont diverses : tandis que le **Canada**, l'**Irlande**, la **Suède** et la **Suisse** déclarent ne pas prévoir une telle aide, un certain nombre de pays (**Allemagne**,

85. Dans le cas d'une demande en réparation pour des dommages corporels, le délai est étendu à 30 ans.

86. Si les dommages apparaissent après ce délai de dix ans, que l'accident est survenu sur le territoire français et que la compétence juridictionnelle appartient à un tribunal français, une action en réparation peut être intentée contre l'État français pendant cinq ans à compter de l'expiration du délai de dix ans.

87. Sous réserve des dommages corporels pour lesquels aucun délai de prescription ne s'applique.

88. Passés ces délais, mais jusqu'à 30 ans à compter de la date de l'accident, l'indemnisation sera versée par le Gouvernement.

89. Passés ces délais, mais jusqu'à 30 ans à compter de la date de l'accident, l'indemnisation sera versée par l'État.

90. Un projet gouvernemental en ce sens est toutefois en cours de discussion en Suède.

91. Sous réserve qu'il existe une police d'assurance.

92. Sous réserve de l'application du droit belge.

93. Sous réserve de l'existence d'accords bilatéraux prévoyant une telle possibilité.

94. S'agissant des victimes vivant aux États-Unis.

Danemark, Finlande, France, Japon, Luxembourg) indiquent qu'en cas de besoin une telle aide pourrait être mise à disposition des victimes, certains précisant l'absence d'obligation juridique (**Japon**) ou de dispositif général régissant cette aide (**France**). Au contraire, en **Autriche** cette aide sera accordée dans le cadre du devoir général d'administration publique ; elle peut également intervenir via le système d'assistance judiciaire (**Autriche, Belgique**). Enfin, s'agissant de l'aide accordée par l'État de l'accident aux victimes résidant à l'étranger, celle-ci peut être le résultat de négociations diplomatiques (**République tchèque**) ou de la mise en œuvre d'accords bilatéraux (**Bulgarie**).

La procédure régissant le règlement à l'amiable des demandes en réparation entre d'une part l'exploitant, l'assureur ou le Pool d'assurance et d'autre part la victime peut être celle de droit commun (**Allemagne, Finlande, France**) sous réserve de l'accord des parties (**Finlande**) ou être entièrement laissée à la discrétion des parties (**Autriche, Belgique**). Elle peut également être organisée par l'exploitant responsable (**Luxembourg, République tchèque**). Au **Canada**, dans le cas d'un accident de grande ampleur, la Commission des réparations des dommages nucléaires fera application d'une procédure du type de celle des tribunaux administratifs plutôt que de celle essentiellement contradictoire du droit de la responsabilité quasi-délictuelle, utilisée aux termes de la partie I de la Loi sur la responsabilité nucléaire, afin d'aboutir à un règlement juste et rapide des demandes. S'agissant des formes de ce règlement à l'amiable, il s'ouvrira généralement par une phase de négociations entre les parties en vue d'aboutir à un arrangement, lequel peut être approuvé par les tribunaux (**Bulgarie**), suivie en cas d'échec de la saisine d'un médiateur ou d'un arbitre puis des tribunaux (**Bulgarie, France, Japon, Suède**) ou directement des tribunaux (**Suisse**).

En cas de litiges portés devant le tribunal, le tribunal compétent sera dans un certain nombre de pays celui de la capitale de l'État de l'accident (**Belgique**⁹⁵, **Bulgarie**⁹⁶, **Finlande**⁹⁷, **France**⁹⁸, **Pologne**⁹⁹). Dans d'autres pays, il s'agira du tribunal de première instance du lieu de l'accident (**Allemagne**¹⁰⁰, **Japon, Suède, République tchèque**) ou de la province (**Canada**), du district (**Allemagne**¹⁰¹, **Pologne**) ou du canton (**Suisse**) sur le territoire duquel l'accident a eu lieu ou encore du district sur le territoire duquel les dommages ont été causés ou subis ou les mesures préventives prises (**Autriche**), cette dernière attribution de compétence ne garantissant pas l'unité de juridiction recherchée dans les autres cas. Aux **États-Unis**, le tribunal compétent sera la Cour fédérale du district où l'installation à l'origine de l'accident est située.

Lorsque les tribunaux sont saisis, la procédure suivie est généralement celle de droit commun, les tribunaux faisant application du code de procédure civile (**Autriche, Bulgarie, Japon, Pologne**¹⁰²).

95. À savoir le Tribunal de première instance de Bruxelles.

96. À savoir la Cour de district de Sofia.

97. À savoir la Cour de district d'Helsinki.

98. À savoir le Tribunal de grande instance de Paris.

99. Uniquement lorsqu'un fonds de responsabilité est mis en place. Voir note 102.

100. Pour les conditions de saisine de l'une ou l'autre juridiction, voir la réponse à la question f), sous le sous-titre 6 du titre III, figurant dans la compilation des réponses au questionnaire reproduit à l'annexe I du présent compte-rendu.

101. Ibid.

102. Toutefois, lorsqu'il est prévisible que les sommes allouées au titre de la réparation des dommages aux biens ou à l'environnement dépassent la limite de responsabilité de l'exploitant, celui-ci peut instituer un

Le contrôle de la reconnaissance et l'exécution dans les pays voisins des décisions du tribunal compétent pour statuer sur les demandes, en l'espèce le Tribunal de grande instance de Paris, incombent généralement aux tribunaux de l'État dont sont ressortissantes les victimes en application des obligations internationales résultant d'accords et de conventions liant les deux pays (en **Bulgarie**, en **Corée** et en **Suisse** par exemple) ou plus particulièrement du Règlement n° 44/2001 du Conseil du 22 décembre 2000 concernant la compétence judiciaire, la reconnaissance et l'exécution des décisions en matière civile et commerciale (**Allemagne**¹⁰³, **Autriche**, **Luxembourg**). Dans les États Parties à la Convention de Paris sur la responsabilité civile dans le domaine de l'énergie nucléaire, la reconnaissance et l'exécution des décisions du tribunal compétent est réputée être de droit, la décision n'étant soumise à aucun contrôle ultérieur. Ainsi, par exemple au **Danemark**, il appartient à l'huissier de la Cour d'appliquer la décision. En **Finlande**, si le Gouvernement ne s'en charge pas, la Cour d'appel d'Helsinki peut être saisie de la demande en exécution.

5. L'interface entre l'État de l'accident et le régime international de responsabilité civile nucléaire

Les questions qui suivent sont sans objet pour les États qui ne sont pas Parties à la Convention de Paris (CP) et à la Convention complémentaire de Bruxelles (CCB).

Aux termes de l'article 10 de la CCB, lorsqu'il apparaît que les dommages résultant de l'accident nucléaire sont susceptibles de dépasser les tranches de réparation à la charge de l'exploitant responsable et de l'État de l'accident, le pays de l'accident est tenu d'en informer les autres Parties Contractantes à la CCB. Cette notification interviendra généralement par la voie diplomatique (**Allemagne**, **Belgique**, **Danemark**, **Finlande**, **France**, **Royaume-Uni**) bien que la **Finlande** fasse peser dans un premier temps cette responsabilité sur le dépositaire de la CCB, à savoir le Gouvernement belge. Dans la plupart de ces pays, aucun autre arrangement spécifique n'a été pris pour organiser l'interface entre l'État de l'accident et les autres pays Parties à la CCB.

À la question de savoir comment la continuité et l'uniformité de la gestion des demandes en réparation pour les trois tranches est assurée, la plupart des pays interrogés (**Belgique**, **Finlande**, **France**, **Royaume-Uni**, **Suède**) ont mentionné que cela s'effectuerait par voie d'accord entre l'assureur et l'État par lequel ce dernier habiliterait certainement l'assureur de l'exploitant à traiter des demandes en réparation et à distribuer les fonds publics à cette fin. Un mécanisme de contrôle, voire d'approbation, par l'État engagé pourra alors être institué (**France**, **Suède**). En **Allemagne**, en raison du régime de responsabilité illimitée, les victimes ne devront adresser leur demande qu'à l'exploitant.

Tous les pays ayant répondu au questionnaire et Parties au régime Paris/Bruxelles (**Allemagne**, **Belgique**, **Finlande**, **France**, **Royaume-Uni**, **Suède**) ont déclaré que les termes de la rémunération des assureurs pour leur travail de gestion des deuxième et troisième tranches sont fixés dans l'accord conclu entre l'assureur et l'État.

La date de référence pour le calcul des indemnités dues au titre de la troisième tranche est celle du sinistre (**Allemagne**, **Belgique**) ou la même que celle pour le calcul des indemnités dues au titre de

fonds de responsabilité limitée ; la procédure spéciale prévue par le régime de responsabilité du Code de la mer polonais s'appliquera alors.

103. Pour une description des voies de transmission de la décision française à l'Allemagne, voir réponse à la question g) sous le sous-titre 6 du titre III, figurant dans la compilation des réponses au questionnaire reproduit à l'annexe I du présent compte-rendu.

la première tranche (**Finlande**). En raison de la longueur de la procédure, un ajustement pourra s'avérer nécessaire compte tenu du changement de valeur entre cette date et celle du jugement final (**Allemagne**).

L'**Allemagne**, la **Belgique** et la **Finlande** ne prévoient pas d'échelonnement éventuel des contributions nationales à la tranche internationale de réparation tandis qu'en **France**, cet échelonnement s'opérera en fonction des dommages à indemniser.

À la question de savoir si le pays de l'accident fera l'avance de la tranche internationale, la **Belgique** et la **Finlande** ont répondu positivement. Cette solution serait également adoptée par l'**Allemagne** en cas de besoin. La **France** ne prévoit pas un tel système.

Aucun État interrogé ne prévoit un système de compensation autorisant un État voisin, Partie à la CCB, à opérer une compensation entre un certain montant de réparation qu'il utiliserait pour indemniser ses ressortissants victimes de l'accident et sa contribution au titre de la tranche internationale de la CCB.

Comme prévu par la CP et la CCB, les intérêts et dépens seront pris en charge soit par l'exploitant, les assureurs pouvant être tenus de payer une partie de ces frais aux termes de la police d'assurance (**Finlande, France**), pour les dommages entrant dans le cadre de la première tranche, soit par l'État de l'accident, pour les dommages de la deuxième tranche, soit par les États Parties à la CCB au prorata de leurs interventions respectives pour les dommages couverts par la troisième tranche.

Annexe

LÉGISLATION NATIONALE RÉGISSANT LA RESPONSABILITÉ CIVILE NUCLÉAIRE¹⁰⁴

Allemagne

Chapitre IV (articles 25 à 40) de la Loi sur l'énergie atomique du 23 décembre 1959, dernièrement modifiée le 22 avril 2002. Le texte de cette Loi modifiée est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 70¹⁰⁵.

Autriche

Loi sur la responsabilité civile pour les dommages causés par la radioactivité du 7 octobre 1998. Le texte de cette Loi est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 63.

Belgique

Loi sur la responsabilité civile dans le domaine de l'énergie nucléaire du 22 juillet 1985, modifiée le 8 juin 2000. Le texte de cette Loi dans sa version de 1985 est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 37. Une note sur son amendement de 2000 a été publiée dans le *Bulletin de droit nucléaire* n° 66, p. 38.

Bulgarie

Chapitre X de la Loi relative aux utilisations pacifiques de l'énergie atomique du 28 juin 2002. Une note sur cette Loi a été publiée dans le *Bulletin de droit nucléaire* n° 70¹⁰⁶.

104. Les numéros du *Bulletin de droit nucléaire* sont disponibles sur le site web de l'AEN à l'adresse suivante : <http://www.nea.fr/html/law/nlbfr/index.html>

105. Sauf lorsque cela est précisé, les réponses allemandes au questionnaire se fondent sur la Loi sur l'énergie atomique dans sa version antérieure au dernier amendement du 22 avril 2002.

106. Les réponses bulgares au questionnaire se fondent sur une législation antérieure, à savoir le chapitre IV (articles 33 à 38) de la Loi relative aux utilisations pacifiques de l'énergie atomique du 7 octobre 1985, modifiée le 20 juillet 1995. Le texte de cette Loi modifiée est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 58.

Canada

Loi concernant la responsabilité civile en matière de dommages nucléaires de 1970, modifiée en 1985. Le texte de cette Loi dans sa version de 1970 est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 6. Une note sur son amendement de 1985 a été publiée dans le *Bulletin de droit nucléaire* n° 44, p. 34.

Corée

Loi n° 2094 sur l'indemnisation des dommages nucléaires du 24 janvier 1969, dernièrement modifiée le 16 janvier 2001. Le texte de cette Loi modifiée est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 68.

Danemark

Loi n° 332 relative à la réparation des dommages nucléaires du 19 juin 1974, modifiée le 7 décembre 1988. Le texte de cette Loi dans sa version de 1974 est reproduit en français dans le *Bulletin de droit nucléaire* n° 15, p. 36. Une note sur son amendement de 1988 a été publiée dans le *Bulletin de droit nucléaire* n° 43, p. 77.

Arrêté n° 582 du 29 juin 1994 augmentant le montant de responsabilité pour les dommages nucléaires. Une note sur cet Arrêté a été publiée dans le *Bulletin de droit nucléaire* n° 54, p. 51.

Espagne

Chapitres VII à X de la Loi sur l'énergie nucléaire du 29 avril 1964, modifiée à plusieurs reprises. Une note sur son amendement du 30 décembre 1994 augmentant le montant de responsabilité a été publiée dans le *Bulletin de droit nucléaire* n° 55, p. 33.

États-Unis

Loi Price Anderson de 1957, modifiée à plusieurs reprises. Le texte de cette Loi dans sa version de 1988 est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 42.

Finlande

Loi sur la responsabilité nucléaire du 8 juin 1972, modifiée en 1986, 1989 et 1994. Le texte de cette Loi dans sa version modifiée de 1989 est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 44. Des notes sur l'amendement de 1994 ont été publiées dans le *Bulletin de droit nucléaire* n°s 53, p. 95, et 55, p. 34.

Décret n° 785 du 30 octobre 1998 augmentant le montant de responsabilité civile nucléaire des exploitants. Une note sur ce Décret a été publiée dans le *Bulletin de droit nucléaire* n° 63, p. 84.

Irlande

Pas de législation spécifique régissant la responsabilité civile nucléaire.

Italie

Chapitre III (articles 15 à 25) de la Loi n° 1860 sur les utilisations pacifiques de l'énergie nucléaire du 31 décembre 1962, modifiée par le Décret n° 519 du 10 mai 1975. Le texte de cette Loi modifiée est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 16.

Japon

Loi sur la réparation des dommages nucléaires du 17 juin 1961, modifiée à plusieurs reprises. Le texte de cette Loi dans sa version du 31 mars 1989 est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 45. Des notes sur ces amendements de 1994 et 1999 ont été publiées dans le *Bulletin de droit nucléaire* n°s 56, p. 92, 63, p. 88, et 64, p. 57.

Loi sur l'établissement des conventions d'indemnisation pour la réparation des dommages nucléaires du 17 juin 1961, modifiée à plusieurs reprises. Le texte de cette Loi dans sa version du 27 mai 1988 est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 45.

Lituanie

Chapitre XI (articles 58 à 63) de la Loi sur l'énergie nucléaire du 14 novembre 1996 Le texte de cette Loi est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 60.

Pays-Bas

Loi sur la responsabilité des accidents nucléaires du 17 mars 1979, modifiée le 26 juin 1991. Le texte de cette Loi modifiée est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 49.

Pologne

Chapitre 12 (articles 100 à 108) de la Loi sur l'énergie atomique du 29 Novembre 2000. Le texte de cette Loi est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 68.

Roumanie

Loi sur la responsabilité civile des dommages nucléaires du 3 décembre 2001. Le texte de cette Loi est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 69.

Royaume-Uni

Articles 12 à 21 de la Loi de 1965 sur les installations nucléaires, modifiée en 1983 et 1989. Le texte de cette Loi dans sa version de 1983 est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 33. Une note sur l'amendement de 1989 a été publiée dans le *Bulletin de droit nucléaire* n° 44, p. 48.

Ordonnance du 24 mars 1994 visant à augmenter les limites de responsabilité de l'exploitant nucléaire. Une note sur cette Ordonnance a été publiée dans le *Bulletin de droit nucléaire* n° 53, p. 104.

Suède

Loi sur la responsabilité civile nucléaire du 8 mars 1968, modifiée par le 10 mai 1974, le 22 décembre 1982, le 1^{er} juillet 1995 et le 7 mars 2001. Le texte de cette Loi dans sa version de 1982 est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 33. Des notes sur les amendements ultérieurs ont été publiées dans le *Bulletin de droit nucléaire* n°s 37, p. 25, 42, p. 30, 49, p. 70, 56, p. 95, et 67, p. 59.

Suisse

Loi sur la responsabilité civile en matière nucléaire du 18 mars 1983, modifiée en 1991. Le texte de cette Loi dans sa version de 1983 est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 32. Une note sur son amendement de 1991 a été publiée dans le *Bulletin de droit nucléaire* n° 49, p. 70.

Ordonnance d'application du 5 Décembre 1983, modifiée à plusieurs reprises. Des notes sur cette Ordonnance et ses amendements ont été publiées dans le *Bulletin de droit nucléaire* n°s 33, p. 22, 37, p. 27, 59, p. 65, et 67, p. 59.

Ordonnance relative à l'élévation de la couverture d'assurance de l'exploitant nucléaire du 24 octobre 1990. Une note sur cette Ordonnance a été publiée dans le *Bulletin de droit nucléaire* n° 47, p. 63.

République tchèque

Section V (articles 32 à 38) de la Loi n° 18/1997 sur l'utilisation pacifique de l'énergie nucléaire et des rayonnements ionisants du 24 janvier 1997. Le texte de cette Loi est reproduit en français dans le Supplément au *Bulletin de droit nucléaire* n° 61.

NATIONAL EXPERIENCES AND OPINIONS

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THE COMPENSATION OF DAMAGE IN GERMANY FOLLOWING THE CHERNOBYL ACCIDENT

by Dr. Werner Eich*

Ladies and Gentlemen,

I would first like to take this opportunity to thank the OECD for arranging this meeting and to express my satisfaction that Paris was selected as the venue. I had been here a couple of decades ago and I am delighted to stay in this magnificent city once again.

To commence, allow me to introduce you to the Federal Office of Administration in Germany – *Bundesverwaltungsamt* – for which I work. This authority carries out more than 100 different tasks at the federal level. It has approximately 2 200 employees and is located in Cologne. You can say if there does not exist a specific authority competent for a particular task, probably the Federal Office would be responsible. The Office assists all federal ministries. Following the Chernobyl accident, it worked for the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. In fact, it still does so, because the indemnification of the Chernobyl damage continues until today.

When the accident took place at the nuclear power plant in Chernobyl, Ukraine, on 26 April 1986, I was already an employee of the Federal Office of Administration and I remember the situation at that time quite well. The details of the accident emerged much later. Most of the damage was caused, not in Ukraine but in the neighbouring country of Belarus. And a couple of days later, at the beginning of May, it appeared that Germany was affected as well.

Many people asked themselves: “Did I come into contact with radioactive pollution through rain or via the food chain?” Nowadays it tends to remind me of the mad-cow-disease phenomenon when people were asking: “What about the beef I used to eat?” And it was a fact that in 1986, people suddenly became much more careful or suspicious-minded, and checked their food before eating it. Many avoided eating fresh leafy vegetables. There followed a slump in sales of certain kinds of food, especially fresh milk and fresh leafy vegetables, and that slump occurred at a time when milk producers and vegetable farmers had higher production costs.

The reason for such higher costs was that the German Government’s Radiation Protection Commission issued preliminary health care recommendations:

- first, that dairy cows not be fed fresh fodder for several days;
- secondly, that fresh milk from dairies only be distributed to the population if the iodine-131 activity in the milk in question did not exceed a level of 500 Becquerel (Bq) per litre;

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- thirdly, that milk with a higher level of activity be processed into dairy products which could be stored.

It then became evident that milk producers were faced with higher costs for fodder and that vegetable growers and the vegetable trade could not sell their products as a result of adherence to these recommendations. The result was an economic state of emergency which, in some cases, threatened the very survival of the businesses in question. For example, mushroom growers were not able to sell their crops. Those primarily affected were growers of the chestnut boletus in Bavaria.

Such a situation caused by a nuclear power plant accident had never happened in Germany before. I remember that some of my colleagues were very surprised when they learned that the Federal Office of Administration was responsible in this field. Indeed, the German Atomic Energy Act said it very clearly: the *Bundesverwaltungsamt* was responsible for dealing with claims for compensation. The German Ministry of Agriculture estimated there would be multiple claims from milk producers and vegetable farmers. These producers had always represented a very strong pressure group in Germany. Therefore, the Federal Office of Administration faced a lot of work within a very short time.

The Federal Office can now state that this work was successful. A well-prepared procedure made it possible to register up to 30 000 applications per day, to check up to 6 000 applications and to store up to 10 000 applications in the computer system. By 10 September 1986, about 300 000 applications, almost all of the applications received, had been processed and payments had been authorised. The Federal Office ordered a total of approximately 280 million DEM in payments to be made.

The conditions which were necessary for this work to be successful were:

- first, sufficient budgetary resources;
- secondly, practical compensation guidelines;
- thirdly, qualified personnel; and
- finally, a data processing system.

Let us turn to the first requirement: sufficient budgetary resources. This issue is the most important, but entails the least comment on my part. The matter is very simple: you must have money and you must have it quickly to provide the indemnification.

The second requirement referred to above is the practical compensation guidelines (referred to as the “Equity Guidelines”). These guidelines were designed, primarily, to indemnify damage suffered as a result of adherence to the recommendations of the Radiation Protection Commission. Such damage included higher fodder costs for milk producers as a result of the delay in putting animals out to pasture, and financial losses for vegetable growers and the vegetable trade because their produce was destroyed. Later on, milk producers received compensation for higher fodder costs for periods when the herds were fed exclusively in the stalls, and vegetable growers received compensation for ripe leafy vegetables harvestable in the month of May (spinach, mangold-wurzel, leek, leaf stock etc.).

A spectacular example of damage at this time was the production of powdered milk from contaminated milk stock. The result was a train moving through Germany with several wagons full of highly contaminated milk concentrate. If I remember correctly, a third world country was interested in

buying this stock, but the bargain was not allowed for political or ethical reasons. Therefore, it had to be destroyed by a special technique which was very costly.

The third issue mentioned above relates to the availability of qualified personnel. When the first application forms were returned on 28 May 1986, the necessary organisational structure at the Federal Office of Administration was already in place. Fifteen executive officers were transferred from other sections of the Federal Office of Administration in order to deal with the work; a further 15 executive officers from the Ministry of the Interior were brought in for support activities as required; auxiliary staff were also hired for postal services and the filing office.

The fourth requirement related to data processing systems. At that time, the office equipment was different than it is nowadays. There were no personal computers linked to computer networks, no internet, no e-mailing, not even fax machines. The Federal Office just had a big host computer. However, I don't think the modern office techniques of today would have had a much better result. The data typists were able to input the data at very high speed.

Most important were the efforts to identify unified criteria and data to evaluate the damage caused, objective examinations, on-the-spot damage assessment by the local administration of the Länder, and computerised claim forms made compatible with the data processing system of the Federal Office of Administration. An automated payment process was also arranged with the Federal Treasury.

Although the bulk of the work was carried out in 1986, the Federal Office of Administration has not yet entirely completed these procedures. In the years following the Chernobyl accident, it paid indemnification for contaminated wild game (higher than 600 Bq).

Here are the amounts of compensation which are paid to hunters:

• Red deer	450 DEM
• Roe deer	130 DEM
• Chamois game	150 DEM
• Fallow deer	450 DEM
• Moufflon game	150 DEM
• Young wild boar	200 DEM
• Other wild boar	400 DEM
• Measuring of the contamination	20 DEM

Where does this contamination come from? The reason is that the animals assimilate the radioactivity through their food. The fact that the soil is still contaminated after such a long period of time shows the high degree of toxicity of the Chernobyl fall-out.

The payment to the hunters is made when the contaminated wild game is destroyed. It is not acceptable to bury it or to use it as dog food.

There are opportunities to reduce the contamination of wild game. You can feed the game animals during a longer time in winter. Pickling the meat may reduce the contamination up to 90%. But this leads, of course, to higher costs.

Here are the amounts of compensation which have been paid over the past six years:

	Bavaria**	Baden-Wuerttemberg***	Total****
1995	11 230	4 490	15 720
1996	11 290	7 580	18 870
1997	14 150	5 340	19 490
1998	13 490	8 500	21 990
1999	14 980	8 300	23 280
2000	16 650	6 960	23 610
2001*	23 130	4 700	27 830
Total	104 920	45 870	150 790

* Incl. Nov.

** Mainly wild boars.

*** Mainly roe deer.

**** Payments in DEM.

Compensation has been paid since 1986, however the table simply shows data from the last six years, since 1995. You will note that the amount of compensation paid in Bavaria has increased from 11 230 in 1995 to more than 23 000 this year. Baden-Wuerttemberg increased from 4 490 DEM up to 8 500 DEM, only to return to a lower level this year. In total we paid, during the last six years, over 150 000 DEM. Most of the payments in Bavaria related to wild boars whereas compensation in Baden-Wuerttemberg was mainly for roe deer.

Why are the applications for indemnification from these Länder only? The reason is a purely geographical one, as these Länder are in the south of Germany in the Alps region, where in 1986 the contaminated clouds cooled off and turned into rain. Measurements showed that the contamination there partially was higher than in Minsk, the capital of the most affected country of the Chernobyl accident – Belarus. I was also informed that the contaminated wild game used to come from eastern countries – for example the Czech Republic – via game paths.

Recently, Rhineland-Palatinate has also decided to provide compensation for its hunters. Thus, I regret to inform you that the indemnification of Chernobyl damage continues to this day.

QUESTIONS/DISCUSSION

Mr. Patrick Reyners (NEA Secretariat): Thank you very much for this interesting presentation, focusing in particular on the lasting effects of the Chernobyl contamination in your country. I think this information should logically challenge other countries to contribute with some information as to how they would have handled the economic impact of the Chernobyl accident in their respective territories. First let me invite questions on this presentation.

Dr. Norbert Pelzer (German delegation): Just an additional piece of information to demonstrate the type of work and efforts involved in such compensation: I read from the report of the Federal Office of Administration that there were 300 000 claimants and that one million application forms for compensation were printed. We should bear in mind that if there were a major accident in Europe, it may be necessary to print ten million forms.

M. Fabrice Levasseur (French delegation): Je voudrais demander à notre interlocuteur s'il y a une estimation précise du coût de gestion du sinistre de Tchernobyl en Allemagne ? (ENGLISH – I would like to ask the speaker whether there exists an estimate of the specific costs involved in administering compensation claims in Germany ensuing from the Chernobyl accident?)

Dr. Werner Eich: Until now, we do not have such estimates but we could very easily produce them: we had 30 executive officers working on that job, to which it would be necessary to add further costs for office overheads, premises etc. Every authority in Germany could provide similar figures. If you are interested, I can make up a sum of costs and send it to you.

Dr. Norbert Pelzer (German delegation): This explanation might be a little more graphic when I tell you that we of course needed experts to assess damage allegedly suffered in the Länder. We asked authorities and private companies to determine whether the farmers did really destroy their crops and did not sell them on the market and then claim compensation. I understand that the insurance industry estimated the average cost of administering one compensation claim to be 500 DEM. Since we had 300 000 applicants, that means that 150 million DEM of administrative costs were generating in settling those claims. This is an amount which is higher than the liability amount in certain countries.

Dr. Werner Eich: I would like to make an additional remark. The payments we made until now involved wild game. In this instance the Federal Office of Administration simply has to carry out the administrative work. The hunters are required to fill out a compensation claim form, certify the contamination of the game and send the form to the Chamber of Agriculture. It is then forwarded to the Federal Office of Administration. Therefore, the Federal Office only carries out part of the administrative work relating to each claim. There are several other administrations dealing with these matters and therefore it is rather difficult to provide an estimate of the entire cost.

Mr. Dirk Harbrucker (German delegation): I would like to ask you one question in respect of the compensation the hunter receives in respect of his loss of property. Is there any obligation for

him to destroy the deer? What does he really do with the deer? Are they destroyed by public authorities?

Dr. Werner Eich: The contamination of the wild game is measured and then it is destroyed. As I already said, it is not sufficient to bury it or to use it as dog food. It must be destroyed. I gave you the example of the large volumes of powdered milk. At that time, it was very expensive to destroy this concentrated milk, as it cannot be burned and therefore a special technique is used which is very expensive (50 million DEM).

Mr. Yrjo Sahrakorpi (Finnish delegation): My question concerns the legal basis for compensating hunters in respect of these wild animals since, as far as I am aware in my country, professional hunters no longer exist. There are hunting societies but these people hunt for recreation. I understand that this situation was different in Germany as the hunters were professional people and therefore they were compensated for loss of profit. Is this the case?

Dr. Nobert Pelzer (German delegation): Yes, of course, the hunters hunt for recreational purposes but they sell the meat which they do not consume themselves. With regard to the legal basis for compensation, we have a special Section in the Atomic Energy Act (Section 38) which states that if a victim suffers nuclear damage in Germany and this victim cannot obtain compensation under the law of the accident State, or if such compensation is less than it would be under German law, then the Federal State shall provide compensation up to an amount of 1 billion DEM. This is one legal basis for compensation. In addition, at that time regulations were made to avoid hardship, especially with regard to travel agencies, dairies and farmers, some of which came near bankruptcy following the Chernobyl accident. Since they suffered pure economic loss without any link to damage to property or personal injury, normally such victims would not be compensated under German law. For this reason, this special regulation was introduced. The entire amount of compensation paid was almost half a billion DEM. I think 250 million DEM were paid under Section 38 and the other 250 million DEM without any legal obligation, just to avoid hardship.

M. Paul Kayser (Luxembourg delegation): En 1986, la réunification de l'Allemagne n'avait pas encore eu lieu. Je suppose que les agriculteurs de l'Allemagne de l'Est n'ont pas été indemnisés en ce temps là. Qu'en est-il après la réunification? Ces chasseurs ont-ils obtenu une réparation? (ENGLISH – In 1986, the German reunification had not yet taken place. I presume that the farmers in East Germany were not compensated at that time. What happened after reunification? Did these hunters receive compensation?)

Dr. Werner Eich: They were not compensated. Indemnification operations were terminated in 1986. Most cases were compensated by then and nowadays, we just pay compensation for hunters' damage. None of the farmers in the new Länder received compensation in respect of damage suffered at that time.

Dr. Nobert Pelzer (German delegation): With regard to the farmers at that time, there were no individual farmers in the former GDR. I do not know whether the GDR regime compensated people. Probably not. The concept of compensation under socialist law was quite different from ours and they did not pay money as compensation but rather they provided in-kind advantages such as additional vacation days or improved apartments, etc.

Dr. Werner Eich: As I mentioned, one or two months ago, a third Land, Rhineland-Palatinate joined with the two Länder Bavaria and Baden-Wuerttemberg and it might be interesting to determine what they have done with the wild game report.

Dr. Nobert Pelzer (German delegation): I am not a scientist but I understand that some time is necessary before the caesium becomes present in the grass, which is then consumed by the wild deer. Perhaps it is only now that such caesium is become manifest and the deer are contaminated.

Dr. Werner Eich: May I suggest that Mr. Mundigl make a short statement on this issue.

Mr. Stefan Mundigl (NEA Secretariat): I'm afraid that that is not entirely true, Dr. Pelzer. The contamination has always been there and the question is just whether they really had the meat measured before and realised that they had contaminated meat. The difference is that the contamination has already been dispersed in places where we find normal soil or agricultural soil, however, this is not the case in respect of forest ground. In forest ground, the contamination remains in the upper layer, explaining why reindeer and wild boar are still contaminated.

Dr. Werner Eich: Perhaps the land in Palatinat does not have as much contamination as does Bavaria or Baden-Wuerttemberg.

Mr. Geoffrey Warren (UK delegation): I was going to ask if it was in fact caesium that had caused the contamination. I think the answer indicates that caesium has a half-life of 42 years. Will you continue to pay compensation for the next decade or so? Will you have enough money to compensate?

Dr. Werner Eich: This question has not in fact been examined as we simply work from day to day.

Mr. Patrick Reyners (NEA Secretariat): Unless there are other questions specifically on the German experience, it would be interesting to get some insight from other countries affected by the fallout after Chernobyl.

Mr. Hakan Rustand (Swedish delegation): My country was also affected by the Chernobyl accident, especially the northern part. There was no legal ground for compensation since the Soviet Union and Sweden did not jointly belong to any international regime compensating nuclear damage. The Swedish Government decided to award funds to compensate those who could prove that they had suffered nuclear damage. Nuclear damage was mainly suffered by farmers in the far North and also by the reindeer breeders. As outlined by the experts, the forest and the mountains were exposed to caesium and therefore the animals living there were contaminated and their meat could not be used for commercial purposes. The claims were handled I believe by the National Board for Agriculture and the regional offices which deal with these issues. I am not aware of any estimation of the cost of handling these claims but, if I remember correctly, the sum awarded by the Government was 50 million SEK. Additional money may have been paid but I am not aware of it. Therefore, Sweden was also affected but not to the same extent as Germany.

Mr. Patrick Reyners (NEA Secretariat): Are there still claims for compensation resulting from persistent contamination affecting, in particular, the reindeer at the moment?

Mr. Hakan Rustand (Swedish delegation): No, I do not think so. I understand that the scientists have measured the caesium quantities of the reindeer, which appear to have disappeared and therefore reindeer meat can be sold again on the market.

Mr. Geoffrey Warren (UK delegation): I am not sure whether or not the British Government is still paying compensation to farmers in Cumbria and North Wales. I believe they are. They

certainly were last year. It is the same problem of land where the sheep graze being contaminated by the caesium. We have the same limit in the United Kingdom: 600 Bq per kilo of meat.

Mr. Patrick Reyners (NEA Secretariat): I would like to come back to the German speaker and ask him whether you had experienced any particular difficulty in establishing contamination limits in respect of various foodstuffs shortly after the Chernobyl accident. The EC Regulation had not yet been adopted at that time. Had you developed your own standards?

Dr. Werner Eich: That figure of 600 Bq was adopted by the European Union. I presume that the German Regulation and the EU Regulation are equal.

Mr. Patrick Reyners (NEA Secretariat): If I am not incorrect, I understand that the EU Regulations on this subject were not adopted before 1987. So, during a certain period you may have had to anticipate, although I believe that there was a certain degree of international consultations on the subject.

Dr. Nobert Pelzer (German delegation): The only food and foodstuffs that were compensated are those which had a higher level of radioactivity than the figures recommended by the Federal Office for Radiation Protection. You are correct that the EU Regulations were adopted at a later date. There was some confusion at the beginning because different Länder made their own recommendations depending on which party was in government in each Land. The Federal State decided that only those figures recommended by the Federal Office for Radiation Protection would be applicable.

Mr. Patrick Reyners (NEA Secretariat): Je voudrais me tourner vers le représentant de la Commission européenne ainsi que vers mes collègues de l'AEN pour leur demander si, plus de 20 ans après, ces normes réglementaires paraissent toujours aux experts scientifiques appropriées, s'il est envisagé de les maintenir indéfiniment ou si des travaux en vue de les réviser sont en cours. (ENGLISH – I would like to turn to the representative of the European Commission and also to my NEA colleagues to ask them if, 20 years later, these regulatory norms still appear appropriate to the scientific experts, if it is planned to keep them indefinitely or if a revision exercise is under way?)

Mr. Ted Lazo (NEA Secretariat): These norms were established through the European Commission and through the United Nations Codex Alimentarius Commission and have been maintained since 1987, when they were enacted. In terms of food and foodstuffs, as far as I know, there are currently no moves to change those accepted contamination levels. There is, however, a great deal of work going on at the moment with regard to commodities that cross international borders because there are no existing internationally-accepted norms on what contamination levels, in a post-accident sense, would be acceptable. There is quite a lot of work going on in this respect, but not for food.

Mr. François Brillanceau (EC delegation): Je ne suis pas un spécialiste des niveaux maximums admissibles pour les denrées alimentaires. Je ne pense pas que les niveaux tels qu'ils ont été édictés à l'époque soient remis en question. Je sais qu'il existe aussi des règlements régissant l'importation de denrées alimentaires en provenance des pays tiers, qui sont toujours en vigueur et qui concernent plus particulièrement les champignons. (ENGLISH – I am not a specialist in relation to maximum permitted levels for foodstuffs. I do not think that the levels as set out at that time are contested. I know that there are also regulations governing imports of foodstuffs originating from third countries, which are still in force and which are more particularly related to mushrooms.)

Mr. Denys Rousseau (French Delegation): Je voudrais également faire une remarque qui nous relie avec le sujet dont on débattait un peu plus tôt, à savoir le problème de l'information. Tout

d'abord, s'agissant de ces normes européennes, il y a deux règlements qui coexistent aujourd'hui et qui fixent des montants différents : un règlement relatif aux produits contaminés à la suite de l'accident de Tchernobyl qui est toujours en vigueur et un règlement qui a été adopté quelques mois après le premier règlement dont je viens de parler et qui fixe des montants différents. Pour reprendre sur le problème de l'information dont on parlait précédemment, je pense qu'en cas de situation post-accidentelle, ce n'est pas aider les personnes chargées de la communication que d'avoir deux règlements qui traitent de la même situation avec des normes en valeur différentes. Par ailleurs, ces normes régissent des problèmes de commercialisation. Or comme il n'existe pas de normes sanitaires, toutes ces normes sont utilisées de façon pratiquement explicite comme des normes sanitaires, ce qui peut poser des problèmes de communication car ce sont des normes de commercialisation dont la pertinence en matière de santé publique n'apparaît pas aujourd'hui évidente à beaucoup d'experts. (ENGLISH – I would also like to make a comment which is related to the issue we were discussing earlier, namely the information problem. First, regarding these European norms, there are two regulations which coexist today and which set out different amounts: one regulation on the products contaminated following the Chernobyl accident, still in force, and another regulation which was adopted a few months after the first regulation I just mentioned and which sets out different amounts. To come back to the information issue which we were discussing previously, I think that in the case of a post-accident situation, communication reps will not be helped by the fact that two regulations dealing with the same situation set out different levels. Furthermore, these norms govern marketing issues. However, seeing as there are no health norms, all these norms are used in an almost express way as health norms, which may lead to communication problems as they are marketing norms the relevance of which in public health terms is not obvious to many experts today.)

Annex

COMPENSATION FOR DAMAGE FOLLOWING THE ACCIDENT AT THE CHERNOBYL NUCLEAR POWER PLANT

Documentation of the Federal Office of Administration (*Bundesverwaltungsamt*)*

An accident took place at the nuclear power plant in Chernobyl, USSR, on 26 April 1986, details of which only emerged much later.

According to initial official statements, the Federal Republic of Germany was not in any acute danger. Nonetheless, the German Government's Radiation Protection Commission issued preliminary health care recommendations on 2 May 1986.

The Radiation Protection Commission recommended:

- that dairy cows not be fed fresh fodder for several days;
- that fresh milk from dairies only be distributed to the population if the iodine 131 activity in the milk in question did not exceed a level of 500 Bq per litre;
- that milk with a higher level of activity be processed into dairy products which could be stored.

In a second recommendation on 7 May 1986, the Radiation Protection Commission advised the population, among other things, to avoid eating fresh leafy vegetables. It noted in this connection:

- A level of 250 Bq per kilogram is recommended as the limit for fresh leafy vegetables for human consumption. This would allow no substantially higher radiation exposure than from the iodine 131 in milk.

It then became evident that milk producers were being faced with higher costs for fodder and that vegetable growers and sellers were not be able to sell their products and goods as a result of adherence to these recommendations. The result was an economic state of emergency which, in some cases, threatened the very survival of the businesses in question.

Those affected were promised swift and unbureaucratic assistance from the government.

In view of this situation, preparatory measures were taken immediately by the Federal Office of Administration since, pursuant to § 38, paragraph 4, of the Atomic Energy Act (*Atomgesetz*), this

* Published by the Federal Office of Administration, Postfach 68 01 59, 5000 Cologne 60, as of September 1987.

office, in accordance with § 38, paragraph 2, of the said law, was responsible for dealing with claims for compensation.

Among the measures taken were:

- an organisational decree of the president on 5 May 1986 transferring the duties in question to department III 3, and the setting up of a working group to prepare for concrete activities;
- establishment of a telephone information service;
- initial talks at the Ministry of the Interior with the deputy head of division RS (Reactor Safety and Radiation Protection), with the department head responsible for nuclear energy and with an official from the organisation department;
- establishment of a working group including members of the organisation department, of internal affairs, of the data processing group and of department III 3 to prepare, organise and plan for dealing with the claims which were to be expected.

On 12 May 1986, interministerial consultations were held under the aegis of the Federal Chancellery to draw up compensation guidelines for § 38, paragraph 2, of the Atomic Energy Act. The Federal Office of Administration took part in the consultations because it was to implement the guidelines and had the responsibility of ensuring that they be implemented in a practical manner.

The compensation guidelines were designed primarily to compensate for damage suffered as a result of adherence to the recommendations of the Radiation Protection Commission. Such damage included higher fodder costs for dairy producers as a result of the delay in putting animals out to pasture, and financial losses for vegetable growers and sellers because their produce was destroyed.

In view of the large number of claims for compensation which were expected (the German Ministry of Agriculture estimated there would be 320 000 claims from milk producers and 30 000 claims from vegetable farmers) and in order to ensure swift and unbureaucratic assistance, a regulation had to be found to deal with the huge volume of work quickly.

This was only possible with the help of the electronic data processing system at the Federal Office of Administration. In order to make effective use of the data processing system, however, the compensation guidelines had to be adapted, in turn, to the data processing system to ensure that the guidelines could be properly implemented.

The following requirements had to be fulfilled in this connection:

- clear, unified criteria and data to evaluate the damage caused;
- objective examination and on-the-spot damage assessment by the local administration of the Länder;
- computerised claim forms compatible with the data processing system of the Federal Office of Administration.

These requirements were accounted for in the guidelines.

The compensation payments to individual milk producers were to be calculated on the basis of the amount of milk produced in the month of May and endorsed by the dairy which took charge of the milk. A compensation of 15 pfennigs per litre was set forth for additional fodder costs while the herds were being fed exclusively in the stalls, and 7.5 pfennigs per litre while the herds were being fed partially in the stalls. The local administration of the Länder was to check the claims and ascertain whether or not they were truthful, in particular with regard to the length of time the herds were fed in their stalls.

Compensation was only to be paid to vegetable growers for lettuce and ripe leafy vegetables (spinach, mangel-wurzel, leek, leaf stock) usually harvested in May. The level of payment was to correspond to the types of greens and vegetables, the type of cultivation and the distance to markets. Prices per square metre of cultivation were set forth, valid for the whole country, for the various types of produce. The truthfulness of information made in claims, in particular with regard to the area of cultivation, and whether or not the produce had been destroyed was to be ascertained and endorsed by the local administration. The same procedure was to be carried out for vegetable sellers.

While the text of the guidelines was being discussed in Bonn and co-ordinated with the authorities in the Länder to seek their support, the data processing group at the Federal Office of Administration began preparing a data processing programme in co-operation with the organisation department and the department responsible for the field in question. This was accomplished in no time at all, with staff members even working on Sundays and holidays. The data processing system enabled data from the various blanks on the application form to be recognised, examined and processed automatically by the system. The processing system was to culminate in a printout of the notification for compensation.

An automated payment process was arranged with the Federal Treasury by means of an exchange of tapes.

The results of the activities of the Federal Office of Administration, including the computerised application forms, were presented at the consultations of the interministerial working group and were approved.

On 21 May 1986, the compensation guidelines were signed by State Secretary Kroppenstedt at the Federal Ministry of the Interior and were published in the Federal Gazette (*Bundesanzeiger*) on 27 May 1986 (Annex 1).

By this time, the first application forms had already been printed and distributed by the Federal Office of Administration. The forms for vegetable growers (G1) were distributed to the Ministries of Agriculture of the Länder, which distributed them in turn to the vegetable growers via local administration, offices and chambers of agriculture. The forms for milk producers (M1) were sent out directly to the 916 dairies specified on a dairy list. Each dairy filled the forms in on behalf of its suppliers, providing information on the amount of milk supplied, name, address and bank account number. The application in question then went to the milk supplier for signature.

A total of one million application forms were printed by the printers of the Federal Office of Administration.

Parallel to the preparation of procedures, an organisational structure for the new working group was set up at the Federal Office of Administration in department III 3. Eight classrooms were transformed into office space. One classroom was set up for use as a filing office.

Cables for display units and additional telephone lines were quickly installed in the offices. This required a good deal of cabling.

Once staff requirements for expertise, data recording, postal services and filing were calculated, 15 well-qualified specialists were transferred from other sections of the Federal Office of Administration and put to work at their new tasks. A further 15 specialists from the Ministry of the Interior were brought in for support activities as required. Ten data recording specialists were made available for data collection. Auxiliary staff was also hired for postal services and the filing office.

When the first application forms were returned on 28 May 1986, the organisational structure needed was already in place. The incoming applications were primarily those on form G1 for vegetable growers, who in many cases were faced with economic ruin by the loss of their spring crops and were therefore particularly interested in getting their compensation quickly. In some cases, the urgency of the claim was endorsed by the local administration on a blank on the form reserved for this purpose. These applications were dealt with immediately, such that by 30 May 1986, the first computerised notifications had already been issued and, at the same time, payment orders were sent out to the Federal Treasury.

The transfer of payment from the Federal Treasury via the Land Central Bank (*Landeszentralbank*) to the recipient's bank took an average of five to six days. First payments were said to have been received by the applicants on 5 June 1986.

After the guidelines entered into force, further interministerial consultations were held in Bonn for draft guidelines on compensation in accordance with the principle of equity for various other types of vegetables (equity guidelines for vegetables). These guidelines were designed to give compensation, without recognition of the legal right thereto, to vegetable growers and sellers who, as a result of the general slump in the market, had suffered financial losses on types of vegetables other than the lettuce and leafy vegetables referred to in the compensation guidelines.

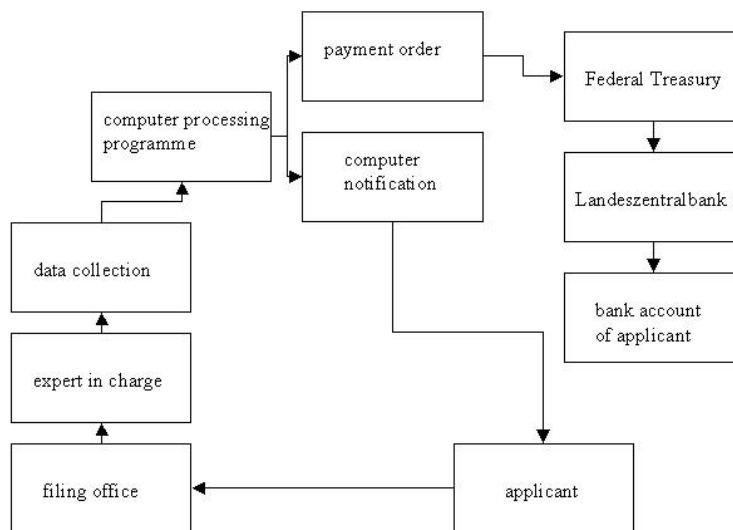
Here, too, many small and medium-sized businesses were on the brink of collapse, and speedy assistance was called for. A total of 13 further types of vegetables were included in the compensation regulation. The regulations were more or less the same as those in the compensation guidelines, except that they included a deadline for applications, set for 31 August 1986.

The Federal Office of Administration co-operated closely once again during consultations on the draft equity guidelines for vegetables, in particular for the computerised application forms (G2 and H2) and the notification forms. Experience gained in preparing the compensation guidelines was made use of, and, as such, after co-ordination with the Länder, State Secretary Kroppenstedt was in a position to sign the equity guidelines for vegetables on 2 June 1986. They were published on 12 June 1986 in the Federal Gazette (Annex 2). By this time, the application forms had been printed and most of them had already been distributed.

The authorities in question made sure that applications received were processed within a space of three days, and in urgent cases immediately.

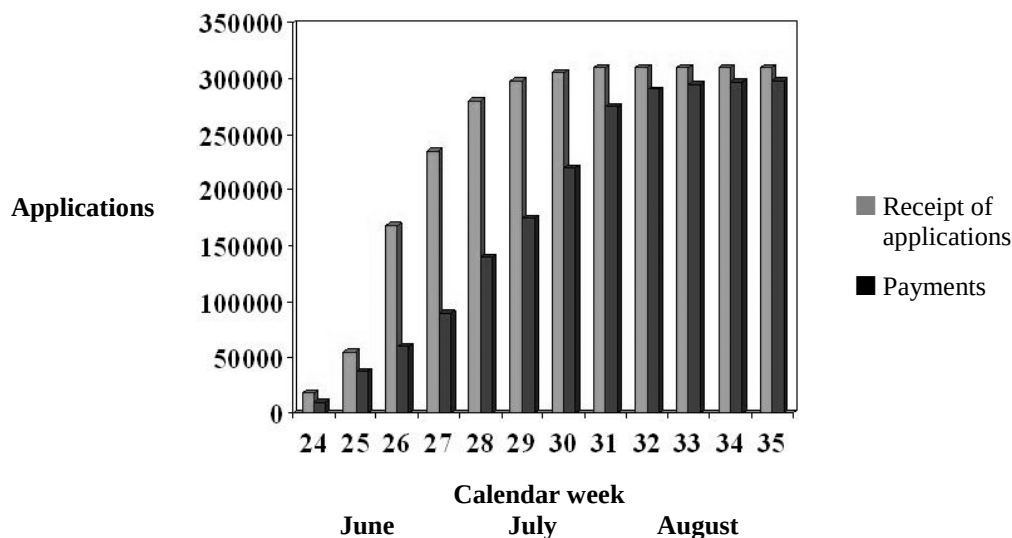
The process was organised as follows: applications, stamped upon receipt, were gathered in a special file divided according to the Land in question and were then transferred to the sections responsible for them, once again divided according to the Land in question. The person in charge checked the applications in accordance with written regulations, to see that they were complete and conclusive, and that they contained all the requisite official endorsements.

Once the applications had been checked by the person in charge, the data from the blanks were collected, examined and computerised. They were processed on the spot, during which time plausibility checks and pre-programmed calculations were carried out. Finally, notification forms (Annex 3) were printed and prepared for distribution by the automated mailing system. Data for the Federal Treasury were taped and printed out, too. In accordance with written instructions, the printouts were checked for mistakes and, where necessary, corrected. The tapes, free of mistakes, were then sent to the Federal Treasury together with minutes of processing and a payment order for all those persons on the tape whose applications had been approved.



This procedure made it possible every day to register up to 30 000 applications, to check up to 6 000 applications and to store up to 10 000 applications in the computer system. By 10 September 1986, 301 811 applications, i.e. more or less all of the applications received, had been processed and payments had been authorised. The bulk of the work was carried out in the months of July and August, as can be seen in the following graph of calendar weeks.

Receipt of Applications and Payments



Staff levels were adapted to needs at the time in question (Annex 4).

Aside from application forms M1/2, G1/2 and H1/2, about 7 000 other applications were submitted to the Federal Office of Administration which had to be processed and approved for payment individually. Among these were 281 applications from sheep and goat milk producers (application form M3), 476 applications from small gardeners (application form G3) and about 3 600 informal applications.

The informal applications included those from individuals who, in the unnerving atmosphere which reigned after the accident at the nuclear power plant, believed they had suffered damage to their health and demanded indemnity and/or compensation (Annex 5). In such cases, the notification that the application had been rejected was accompanied by a sheet of information from the Federal Ministry for Youth, Family and Health containing answers to frequently asked questions.

Because of the concerns about damage to health, there were also applications for a reimbursement of costs for preventative care. As to the need for such care, general reference was made to the further recommendations of the Radiation Protection Commission on 16 May, 2 June and 25 September 1986. Most of the informal applications received were accordingly rejected.

In addition to the recommendations of the Radiation Protection Commission of the German Government, two other health care recommendations issued by the Federal Ministry for Youth, Family and Health also had to be taken into consideration in accordance with Section I, number 2, of the Equity Guidelines.

The first of these, issued on 7 May 1986, recommended that the pharmaceutical industry and manufacturers of medicine not make use of herbs found to be polluted by radioactive material.

The second one was the recommendation of 2 June 1986 according to which the levels of caesium 134 and 137 set forth in EC Regulation No. 1707/86 of 30 May 1986 (Official Journal of the European Community of 31.05.1986, No. L 146, p. 88-89) for imports from third countries into the European Community were to be used for the evaluation of food originating in the Federal Republic of Germany. This means that a general limit of 600 Bq per kilogram for food and a limit of 370 Bq per kilogram for milk products and baby food is not to be exceeded.

For powdered milk and milk concentrate, the limit is calculated on the basis of the milk product used for direct consumption.

On the basis of the recommendation of 7 May 1986, the Federal Office of Administration received 60 applications from farmers who were not able to sell their medicinal herbs, a total amount of 1 200 000 DEM, to the pharmaceutical industry or to manufacturers of medicine. Compensation was paid here in cases where damage was proven.

On the basis of the recommendation of 2 June 1986, 49 applications were received by mushroom growers who were not able to sell their crops. Those primarily affected were growers of ceps from Bavaria. Compensation was also paid here in cases where damage was proven. Payments amounting to a total of ca. 1 400 000 DEM were authorised.

One case which caught the attention of the public was a compensation payment for about 5 000 tons of powdered milk at a value of 3 800 000 DEM which was made to a Bavarian company after the company had attempted to sell the powder in question as fodder for animals (see Annex 6).

Following the decrees on the compensation guidelines and on the equity guidelines (for vegetables), another decree was issued on the basis of the administrative agreement of 24 July 1986 between the federal government and the Länder as a general regulation for compensation in accordance with the principle of equity for damage suffered as a result of the accident at the nuclear power plant in Chernobyl (general equity guidelines). This involved compensation for losses in certain sectors of industry (travel agents, imports and exporters of fresh vegetables etc.) which threatened or might have threatened the survival of the businesses in question. Responsible for the implementation of these guidelines was not the Federal Office of Administration, but the Länder themselves.

On balance, for the year following the accident at the nuclear power plant, we can state that the Federal Office of Administration processed about 313 000 applications and ordered a total of about 291 million DEM in payments to be made (Annex 7). Applications were rejected in about 4 500 cases, of which 57 cases are being appealed and 116 cases are being brought for legal action before the administrative court of Cologne. In view of the total amount of applications, the number of contentious cases is exceptionally low.

In conclusion, one can state that the work entrusted to the Federal Office of Administration was carried out quickly and, in the vast majority of cases, to the satisfaction of the applicants, a fact which was noted in official declarations (Annex 8) and in the press (Annex 9).

Annex 1

from the *Bundesanzeiger* (Federal Gazette)
issued by the Federal Ministry of Justice
Tuesday, 27 May 1986, number 95, page 6417

Official Section

ANNOUNCEMENTS

The Minister of the Interior

**Guidelines
for the Processing of Compensation Claims in accordance with § 38, paragraph 2, of the Law on
Nuclear Energy (*Atomgesetz*) following the accident at the nuclear power plant in Chernobyl
(Compensation Guidelines)
of 21 May 1986**

The accident at the nuclear power plant in Chernobyl is defined as a nuclear incident abroad in accordance with § 38, paragraph 2, of the Law on Nuclear Energy (*Atomgesetz*). The Law on Nuclear Energy places primary liability upon the operator of the plant. The injured parties are, however, not encouraged to take this course because there are exceptional difficulties involved which would seem to make it unacceptable. For this reason, the German government provides compensation pursuant to the stipulations of these guidelines.

I

Prerequisites for compensation

1. The damages for which compensation is requested must have occurred within the purview of the Law on Nuclear Energy.
2. Compensation shall be made for damages to property and other real rights, and for other damages brought about to an adequate extent by the nuclear accident in Chernobyl as a result of direct operational interference in the rights of a business enterprise already set up and exercising its activities. Among damages brought about to an adequate extent are those which occurred as a result of official measures taken or recommendations made in line with precautionary recommendations issued by the German government.

3. Accordingly, cases for which damages are to be compensated are:
- a) destruction of produce,
 - b) confiscation of produce,
 - c) restrictions in accordance with Annex 1 for the milk sector,
 - d) damage caused as a result of direct operational interference in a business enterprise already set up and exercising its activities pursuant to § 823, paragraph 1, of the German Civil Code (BGB).

II

Extent of damage

In cases of damage in kind, compensation is only to be made to the level of the common value of the damaged goods in question. No compensation shall be given for subsequent financial losses going beyond the factually ascertained common value (market value) of the goods.

III

Cession

Any claims for damages made against the injurer are to be ceded to the German government at the level of the compensation payment.

IV

Procedures

1. Responsible for compensation is the Federal Office of Administration (*Bundesverwaltungsamt – BVA*), Barbarastraße 1, Post Box 68 01 59, 5000 Cologne 60, which will be supported by the Länder with official inter-authority assistance.
2. Claims are to be submitted to the offices specified by the German government or by the governments of the Länder. Those who apply for compensation due to interference in their business enterprises already set up and exercising activities are to submit their applications and requisite documentary evidence to the Federal Office of Administration.
3. The offices in question will process the applications on the basis of the criteria specified in Annexes 1 and 2.

In this connection, the offices in question are to examine and ascertain the reasons for and the level of the claims made in accordance with the prerequisites set forth in these guidelines. The Länder are to ensure appropriate monitoring.

4. The application, to be completed on the appropriate form (Annexes 1 and 3), is to be submitted to the Federal Office of Administration without delay together with requisite documentary evidence and the assessment thereof by the office in question. This also applies to cases in

which the office in question comes to the conclusion that prerequisites for approving the claim have not been fulfilled.

5. The Federal Office of Administration shall, on the basis of the documents submitted, decide upon granting compensation.

V

Payment of compensation

1. Compensation will be paid by the Federal Office of Administration.
2. In cases in which the economic survival of the business in question is at jeopardy, the responsible office in question is to add a note to the application so that the Federal Office of Administration can give priority to the application in question.

Bonn, 21 May 1986
RS I 1 511 800/3

Kroppenstedt
by order of the
German Minister of the Interior

Appendix 1

Criteria of the compensation procedures for milk

1. Milk producers with a pre-ordered supply volume

- a) Payment is to be in line with the amount of milk [produced] during the period of delay in putting the herds out to pasture and/or in feeding them fresh fodder.

The normal date for putting herds out to pasture is regarded for the whole of Germany as having been 4 May 1986.

The milk producer is to declare on which dates higher fodder costs were incurred between 4 May 1986 and the day on which his or her herds were put out to pasture and/or fed fresh fodder. Dates given are to be listed separately on which the herds were fed reduced amounts of fresh fodder and/or were only out to pasture for a few hours in response to an official recommendation.

- b) The maximum period of delay is 12 days. Confirmation is required from the offices designated by the Land for any longer periods of delay or deviations from the normal date of putting the herds out to pasture.
- c) The lump sum [for compensation] of 15 pfennigs per litre of milk is set forth for periods when the herds were not being put out to pasture and no fresh fodder was involved. A lump sum of 7.5 pfennigs per litre of milk is set forth for periods when the herds were fed reduced amounts of fresh fodder and were only put out to pasture for a few hours.
- d) No compensation shall be paid for days on which the herds were put out to pasture and/or fed fresh fodder.
- e) Milk producers shall submit their applications on form M 1 (Annex 1), standardised for all of Germany, to the Federal Office of Administration via the dairy and the office specified by the Land.
- f) The office specified by the Land shall certify that the information provided under letter (a) is true.

The dairy shall provide on the application the amount of milk supplied in the month of May.

2. Milk producers with a volume of milk sold directly

- a) In addition to the information provided under number 1, letter (a), the milk producer must add the volume of milk produced for the dates referred to under number 1, letter (a), on which higher fodder costs were incurred.
- b) The same applies to number 1, letters (b) to (d).
- c) Milk producers shall submit their applications on form M 2 (Annex 2) standardised for all of Germany, to the Federal Office of Administration via the chief customs office in question.
- d) The chief customs office shall certify that the information provided is complete.

3. For types of milk other than cow milk, the Länder shall specify the office authorised to accept and examine applications and to transmit them to the Federal Office of Administration. As such, businesses must provide proof of damage individually.

Appendix 2

Criteria of the compensation procedures for leafy vegetables

- a) The types of leafy vegetables liable for compensation are:
lettuce, spinach, mangel-wurzel, leek, leaf stock.
- b) Standardisation and a lump-sum procedure for the various types of vegetables.
- c) A uniform lump sum valid for all of Germany for the vegetables liable for compensation, which is to be calculated on the basis of an if possible three-year average of proceeds from representative wholesale markets during the month of May. Compensation for industrial spinach shall be given on the basis of the average waiting time following the signing of cultivation contracts.
- d) A difference shall be made between:
 - cultivation on open fields;
 - cultivation under foil;
 - cultivation under glass [i.e. in greenhouses].
- e) Surcharge for independent marketing:
 - to retailers +50%;
 - to consumers +100%.
- f) Calculation of damage in accordance with average production per area. Compensation of damage per area in square metres.
- g) Producers shall submit their applications on form G 1 (Annex 3), standardised for all of Germany, to the Federal Office of Administration via the responsible office of the Land (e.g. chamber of agriculture, office of agriculture).
- h) The office designated by the Land shall certify that the information provided is true and shall transmit the applications directly to the Federal Office of Administration.
- i) In cases in which the economic survival of the business in question is at jeopardy, the office designated by the Land is to add a note to the application so that the Federal Office of Administration can give priority to the application in question.

Annex 2

from the *Bundesanzeiger* (Federal Gazette)
issued by the Federal Ministry of Justice
Thursday, 12 June 1986, number 105, page 7237.

Official Section

ANNOUNCEMENTS

**The Minister of the Interior and
the Minister for Food, Agriculture
and Forestry**

**Guidelines on compensation
in accordance with the principle of equity
for losses of income on various types of vegetables
(Equity Guidelines for Vegetables)
of 2 June 1986**

The following equity guidelines have been issued to compensate for hardship suffered as a result of the accident at the Chernobyl nuclear power plant.

§ 1

Prerequisites for compensation

- (1) Equity compensation, without recognition of the legal right thereto, shall be granted for damages suffered within the purview of the agriculture law as a result of the accident at the Chernobyl nuclear power plant, which cannot be compensated for within the framework of the Law on Nuclear Energy (*Atomgesetz*).
- (2) Compensation pursuant to paragraph 1 may be made for damages incurred up to 31 May 1986 at the latest, in response to official public health measures or recommendations for:
 1. celery;
 2. broccoli;
 3. early Chinese cabbage;

4. early savoy cabbage;
5. early onions;
6. kohlrabi;
7. parsley;
8. radishes (red);
9. radish (white);
10. rhubarb;
11. chives;
12. pointed cabbage;
13. fresh herbs cultivated as vegetables.

§ 2

Compensatory damage

Compensation may be granted for damage to property or other real rights resulting from destruction or confiscation as well as for damage resulting from direct operational interference in the rights of a business enterprise already set up and exercising its activities pursuant to § 823, paragraph 1, of the German Civil Code (BGB).

§ 3

Extent of damage

In cases of damage in kind, equity compensation is only to be made to the level of the common value of the damaged goods in question. No compensation shall be given for subsequent financial losses going beyond the factually ascertained common value (market value) of the goods.

§ 4

Compensation from elsewhere

- (1) Equity compensation may only be granted for damage which is not compensated for elsewhere.
- (2) Equity compensation is granted against renunciation of claims for compensation or indemnification made against German public legal entities with regard to the compensation dealt with by these guidelines.

§ 5

Procedures

Applications for compensation must be submitted, using the appropriate form (Annexes 1 and 2) to the offices designated by the Länder by 31 August 1986 at the latest. The offices in question will assess the applications for equity compensation in line with the prerequisites set forth in these guidelines and with the criteria given in Annex 3, ascertain the reasons for and the level of the compensation, and establish the facts.

The application shall be submitted to the Federal Office of Administration without delay together with requisite documentary evidence and the assessment of the office in question.

The Federal Office of Administration will accept the definitively processed applications and pay the compensation.

In processing applications, it will give priority to those cases noted by the office specified by the Land as being particularly grievous.

Bonn, 2 June 1986
RS I 1 – 511 800/3.1

Kroppenstedt
by order of the
German Minister of the Interior

Bonn, 2 June 1986
427 – 784

Dr. Florian
by order of the
German Minister for Food, Agriculture and Forestry

Annex 3

Federal Office for Administration
Ref. No.: 1113-1.5-BW04095835

5000 Cologne 60, 26.09.86
Postcode 68 01 69
Tel. (0221) 7780-1570 or -2402

Ms / Mr / Company

In order for us to process your application as quickly as possible, please include the complete reference number, given above, in all correspondence with the Federal Office of Administration.

8110

Compensation in accordance with the Compensation Guidelines set forth pursuant to § 38, paragraph 4, of the Atomic Energy Act (*Atomgesetz*) for milk producers with a pre-ordered supply volume (M1)

Dear applicant,

In response to your application received here on 07.07.1986, I have assessed a compensation level of 225.80 DEM.

The compensation was calculated on the basis of a lump sum of 15 pfennigs per kilo of milk produced to cover additional fodder costs for every day on which you did not put the dairy cows out to pasture and did not feed them any fresh fodder in response to an official recommendation.

A lump sum of 7.5 pfennigs per kilo was used as a basis for periods during which reduced amounts of fresh fodder were fed and the cows were only out to pasture for a few hours.

On the basis of the information you provided, endorsed by the Land authorities in question, we have authorized:

- a lump sum of 15 pfennigs for 18 days;
- a lump sum of 7.5 pfennigs for 0 days

per kilo of milk produced on these days.

The amount of milk in question was calculated proportionately on the basis of the total amount produced in the month of May, declared by your dairy to be 2 937 kilograms.

I authorised the above-mentioned sum to be transferred to your bank account No. 10618 today at the bank Raiba Murnau (BLZ: 701 694 69).

Yours sincerely,
(by order of)
Adolfs

Instructions on the right of appeal

An appeal against this notification may be made within one month of issue of the latter. The appeal must be submitted in writing to the following address: Federal Office of Administration, Barbarastrasse 1, 5000 Cologne 60.

*

Federal Office for Administration
Ref. No.: 1113-1.5-BW04095835

5000 Cologne 60, 26.09.86
Post Box 68 01 69
Tel. (0221) 7780-1570 or -2402

Ms / Mr / Company

In order for us to process your application as quickly as possible, please include the complete reference number, given above, in all correspondence with the Federal Office of Administration.

Compensation for vegetable sellers in accordance with the principle of equity, pursuant to the Guidelines of 02.06.1986, published in the Federal Gazette (*Bundesanzeiger*) on 12.06.1986 (H2).

Dear applicant,

In response to your application received here on 18.09.1986, I have assessed a compensation level of 523.91 DEM. If you have also submitted an application pursuant to the Guidelines of 21.05.1986 (H1), you will receive separation notification thereof.

This sum was calculated as follows: the individual amounts given in your application were multiplied by the corresponding sale prices given, in so far as they were endorsed by the authorities appointed by the Land and stated to be normal for the market.

Subtracted from this amount was the percentage for loss and expenditures saved, also confirmed by the Land authorities.

The sum for compensation consists of the following elements:

Produce	Quantity you destroyed	Standard net sales price	Deduction for loss etc. in %	Amount
celery				
broccoli				
early Chinese cabbage	6	1.76	1	10.45
early savoy cabbage				
early onions	16	0.75	1	11.88
kohlrabi	90	0.77	3	67.22
parsley	75	0.32	3	23.28
radishes (red)	50	0.76	2	37.24
radish (white)	210	1.80	7	351.54
rhubarb	15	1.31	1	19.45
chives	8	0.36	1	2.85
pointed cabbage				
fresh herbs				
Amount of compensation				523.91

I authorised the above-mentioned sum to be transferred to your bank account No. 440076089 today at the bank KSPK Schwaebisch Gmuend (BLZ: 613 500 40).

Yours sincerely,
(by order of)
Adolfs

Instructions on the right of appeal

An appeal against this notification may be made within one month of issue of the latter. The appeal must be submitted in writing to the following address: Federal Office of Administration, Barbarastrasse 1, 5000 Cologne 60.

THE COMPENSATION OF DAMAGE FOLLOWING THE TOKAI-MURA ACCIDENT*

by Mr. Tatsuya Murakami**

First of all, in order to facilitate your understanding of my report, I shall provide you with a description of the village of Tokai where the accident occurred. The village is located 120 kilometres north of Tokyo, and can be reached by train in approximately one hour. It is on the northern edge of the Kanto plain, the largest plain in Japan. At the north of the village, you find the site of Hitachi, where the Hitachi industries were first founded. There are therefore numerous factories around the village, including of course within the nuclear sector. The village only covers 37 square kilometres but has nevertheless a population of just over 34 000 and is fairly urbanised with an average annual budget of 15 billion yen (JPY).¹ It is considered to be a very rich village.

As you probably know, our village, Tokai, invited the Japanese Atomic Energy Agency to establish itself on our territory, and this village thus became the birthplace of peaceful uses of nuclear energy in Japan. The population has grown with the development of the nuclear industry, and the public finances of the village are largely dependent on this industry to the degree of 60-65%. Therefore, the village is described as a “nuclear dependent community”.

The village is very “nuclear”, so to say, and it symbolises the Japanese nuclear policy. We have established ourselves on the principles of “mutual prosperity in coexistence with the nuclear industry”. It was in this context that the village assembly adopted a declaration on the promotion of peaceful uses of nuclear energy, the only one of its kind in Japan, only one month after the Chernobyl accident in June 1986.²

* Please see the Information Note by the NEA Secretariat on this same subject reproduced immediately after this presentation.

** Mr. Murakami is Mayor of Tokai-mura. The facts contained and ideas expressed in this presentation are the responsibility of the author alone and should not be considered as representing the views of the Japanese government.

1. Equivalent to just over 129 million EUR or over 112 million USD.
2. The text of this Declaration, adopted on 26 June 1986, reads as follows:
“Peace in the world is the desire of all mankind. It is necessary to promote the peaceful uses of nuclear energy for the prosperity of mankind.
Japan is engaged in the peaceful uses of nuclear energy. After having ensured that the Basic Nuclear Law is respected, and having verified that the objectives of research and development are for the peaceful uses of nuclear energy, Tokai-mura accepted the establishment of nuclear installations on its territory. However, the quest for nuclear weapons now represents a threat to mankind.
In these circumstances, the inhabitants of Tokai-mura, as citizens of the only country which has suffered the consequences of atomic bombs, continue to encourage all countries to promote the peaceful uses of nuclear energy and the abolition of nuclear weapons.

At present in the village, there are no less than 13 nuclear sites³ within a territory of 6 square kilometres, quite a narrow area. And of course all these nuclear installations are located in the neighbourhood of the inhabited area. It is in this context that we encountered two nuclear accidents of levels 3 and 4 respectively (on the INES scale⁴) which jeopardised our dream of mutual prosperity and coexistence. I became Mayor six months after the fire and explosion at JNC's Asphalt Solidification Treatment Factory in March 1997. Two years later, exactly at the time when we were discussing reopening this treatment factory, JCO's criticality accident happened.

On 30 September 1999, the first information report from JCO arrived at our village office at 11.34. The accident began at 10.35, so already one hour had passed before the initial report arrived. The report stated that two workers had been contaminated in a uranium fabrication facility and were transported by ambulance to Mito national hospital. It further stated that there was a possibility that this was a criticality accident and that further investigations were underway to determine all details.

At 12.01, further information was received concerning the exact location of the accident and the level of irradiation in different areas. At 14.06, JCO gave us a map showing the area where it was necessary to evacuate residents. At that time, JCO stated that this zone was comprised of a radius of 350 metres which was slightly larger than the zone shown on that map. We therefore took measures to evacuate 47 families, including 161 persons. At 22.30, the Ibaraki prefecture issued a recommendation to residents within a radius of 10 kilometres (i.e. 310 000 people) to shelter indoors.

I would now like to express my analysis of the reasons why this kind of accident happened. There were no less than 666 irradiated victims among the village inhabitants – in such a highly technologically developed country as Japan.

First, I would like to bring to your attention four essential terms which will explain how this kind of accident happened:

1. Beyond Assumption.
2. Hypothetical Accident.
3. National Policy.
4. Myths of Safety.

Immediately after the accident, the Science and Technology Agency of Japan, which is the competent institution for the nuclear industry, as well as the Government and also the Atomic Energy Commission of Japan, described this accident as “beyond assumption”. It is unclear to me how this

Therefore, the inhabitants of Tokai-mura hereby proclaim to all countries in the world that they wish to promote the peaceful uses of nuclear energy and abolish nuclear weapons.”

3. These nuclear sites are as follows: Japan Atomic Energy Research Institute (JAERI); Japan Nuclear Cycle Development Institute (JNC); Japan Atomic Power Co. (JAPCo); Mitsubishi Nuclear Fuel Co. Ltd (MNF); Nuclear Development Corp. (NDC); Sumitomo Metal Mining Co. Ltd.; JCO; Nuclear Fuel Industries Ltd. (NFI); Daiichi Pure Chemical Co. Ltd.; Nuclear Engineering Research Lab. University of Tokyo; Nuclear Material Control Center (NMCC); Laser Atomic Separation Engineering Research Association (Laser J); Japan Irradiation Service Co. Ltd.
4. International Nuclear Event Scale.

accident could be “beyond assumption” as more than 20 accidents of this nature have already taken place in history.

Under the Japanese government administration, the village is under the auspices of the prefecture and it is the prefecture which establishes general measures against disasters; in fact the general measures had been revised in April 1999, taking into account the JNC’s previous fire in March 1997. You will find within these general measures the term “hypothetical accident”. This document on general measures against disasters defines “hypothetical accident” as an event which is not possible to occur in reality, and so it gives an explanation of hypothetical accident concerning every nuclear site and then as a conclusion this document states that no countermeasures are necessary, since this is only hypothetical.

It is said that the Japanese people are obedient vis-à-vis the authorities and that there is a general tendency to accept that the national policy and the measures taken by the government should be obeyed rather than opposed. Furthermore, the Atomic Energy Policy is a “national policy” and there are, even now, some people who argue that the general public should not criticise this kind of policy. The government and the nuclear industry have been developing the nuclear industry taking advantage of this kind of argument. The result is the establishment of the nuclear industry community which prevented the development of mutual criticism and mutual checking. In reality, it is only the nuclear industry that keeps insisting that it is based on national policy but in my opinion, this kind of attitude has produced an insufficiency of atomic energy regulation organisation and inadequate safety regulations.

This was the basis of a climate of excessive confidence in and around the nuclear industry in Japan which stated, without foundation, that accidents do not occur in the atomic energy industry and such accidents never occur in Japan. It was a “myth of safety”. To speak about a risk or a danger meant to place oneself outside the comfortable majority; thus, a criticality accident occurred in a country where the law foreseeing an accident in the atomic energy industry and the organisation in view of such an accident were not adequate.

You must realise that JCO’s criticality accident occurred in this social context at a place called Tokai-mura, which is financially dependent on the atomic energy industry, to a large extent, and which played a locomotive role in the development of that industry. This village has so many nuclear sites concentrated on its territory, so as to own all the equipment necessary to make up an entire nuclear fuel cycle. This kind of accident should have been foreseeable.

There were some people very interested to know why it was the village mayor who decided on the evacuation of the inhabitants and not the prefectural governor or the government and so I would like to give you some kind of explanation about this situation. I returned from a working trip and on the day of the accident, at 13.35, I made myself available at the presidency of the emergency co-ordination commission of the village. According to JCO, the maximum gamma ray level of 0.84 mSv remained and we judged, therefore, that the criticality continued and we took measures based upon this judgement.

At 14.06, two JCO employees came to the village and showed us the evacuation map and we had, therefore, a discussion at the village office about this evacuation demand because 50 mSv was the threshold value of external exposure dose defined in the national emergency measures for evacuation. As a matter of course there were people against this kind of evacuation, nevertheless an employee of the atomic energy institute, present at the meeting, said that there must also be neutron rays which were not being measured at the time, we also received information that all the employees of JCO and Sumitomo Metal Mining Co., who work on the same site, had already been evacuated. So this

situation led us to decide on evacuation a little after 14.30. We summoned the residents' association concerned to discuss how the evacuation would be carried out, and took the decision officially at 15.00. Evacuation was carried out by dispatching the village staff to every house in the village in a village car to transport residents to the large evacuation buses waiting for them. We used this kind of method in order to avoid a panic, but later we regretted that it had contributed to increasing the number of radiated persons.

Therefore, this evacuation was carried out according to the decision made by myself, the mayor of the village. This action was criticised because, according to the emergency measures plan in the event of this kind of nuclear accident, it is the prefectural governor who is supposed to give evacuation instructions to the Mayors and to clearly indicate evacuation and refuge areas. The prefectural governor is supposed, in turn, to follow specialist advice, such as that of the Atomic Energy Commission.

At the time of the JCO accident, counter-measures were taken too late by the government of the prefecture, thus the emergency measures plan which existed at that time did not work. At the moment when I made the decision to evacuate, the national government had not yet convened the Atomic Energy Commission. In fact, it was first decided to convene this Commission at 15.30 and the meeting began at 18.00. The first meeting of the Science and Technology Agency Emergency Commission began at 16.50 and its Tokai-mura local centre was organised only at 19.00. I am giving you these details to show that the national government and the prefecture were not prepared to take measures to protect the inhabitants. That is why the village mayor closest to the villagers was led to take decisions by himself.

The measures taken after the accident to determine to what extent persons and products had been exposed to radioactivity and/or releases of radioactive substances are as follows:

- samples and measures of the air, the soil and water within a 10 kilometre radius were analysed;
- six JCO employees and seven residents were subject to a whole body counter;
- 47 families (161 persons) took part in an enquiry concerning their whereabouts and activities at the time of the accident;
- 14 225 residents of Tokai-mura took part in voluntary medical examinations and enquiries;
- enquiries into the radioactive contamination of 386 agricultural products were carried out;
- 234 safety certificates were delivered;
- 172 JCO employees who were involved in the intervention following the accident were measured for dose, as were 260 emergency personnel and 666 residents.

Let me now examine the details of the indemnity problems. First, I would like to explain to you about the system established by the Law on Compensation for Nuclear Damage [Law No. 147 of 17 June 1961]. This Law has two objectives: first, the protection of victims and secondly, the promotion of the nuclear industry's development. Nuclear industrials are obliged to take measures to dispose of financial means to meet potential compensation claims depending upon the nature of their business and the scale of the enterprises concerned. Therefore, the financial cover is composed of two

parts: first, the nuclear disaster indemnity insurance (operator's insurance), and secondly, the nuclear disaster indemnity contract between the government and the operator.

This Law also provides for the possibility of financial assistance being made available by the government. It states that where the cost of nuclear damage exceeds the amount of the operator's financial security, the Diet (lower house of the Japanese parliament) shall decide the amount to be provided as aid to the victims. In the case of the JCO accident, the maximum possible amount of this indemnity defined by the Law was 1 billion JPY.

This Law was adopted in 1961, but had never been applied until the JCO accident. Therefore, the Science and Technology Agency organised on 27 October 1999 a working group composed of specialists and insurers entitled "Nuclear Damage Investigation Study Group". This group held 17 meetings between then and March 2000. This group provided JCO and the Japan Nuclear Insurance Pool with basic guidelines on damage subject to compensation.

The village of Tokai-mura organised an association of businesspersons, farmers, or peasants and other concerned parties. The situation we were facing was the fact that the indemnity amount (1 billion JPY) was too low, and we could not see how this Law could be applied to our satisfaction, so we decided to organise negotiations, not with JCO which apparently was not capable of paying, but to negotiate with the parent company Sumitomo Metal Mining Co., which is financially capable of paying these kinds of indemnity.

Thus, if you look back upon my explanation of the system which existed at that time, the method which was used to resolve this situation were supra-legal measures negotiating with the parent company and not with JCO itself. The result of this situation was that the government finally decided to revise this Law realising that the existing Compensation Law insufficient. The amendments raised the maximum indemnity amount for power plants from 30 billion to 60 billion JPY⁵ and for installations such as the JCO plant from 1 billion to 12 billion JPY.⁶

Damage resulting from this accident was found all over the territory of the Ibaraki prefecture. JCO is now negotiating out-of-court settlements and there are also some cases before the courts. As of 30 September this year, 99.5% (6 960 cases) have already been resolved. Approximately 14.7 billion JPY in compensation was paid, but 35 major cases still remain to be settled. Among those claims which remain to be settled are those related to health problems raised by the victims association in relation to over 100 inhabitants, and also the compensation problems relating to devaluation of property. Altogether, the residents of the village of Tokai, i.e. 1 170 cases, received approximately 1.4 billion JPY in compensation to date.

Besides this indemnity payment, the Ibaraki prefecture already received 364 million JPY and Tokai-mura received 56 million. There were two kinds of damage: damage completely brought about by the accident, including the impossibility of people to go out of houses or for businesses to open their shops and so on, but the majority of damage within a 10 kilometre radius of the area was caused by rumour. This explains why such damage extended all over the Ibaraki prefecture.

I would now like to describe the measures taken by the national government. Since a long time ago, we had been requesting the government to establish special measures for atomic energy accidents which would clarify the government's responsibility in this field, but such legislation was not adopted.

5. Equivalent to over 516 million EUR or 445.7 million USD.

6. Equivalent to 103.2 million EUR or 89.2 million USD.

Only one Law of that nature was adopted in relation to possible accidents in the petro-chemical field. As a result of the JCO accident, the government finally decided to draft a Special Law on Emergency Preparedness for Nuclear Disaster [Law No. 156 of 17 December 1999].

Furthermore, there were criticisms relating to the lack of control of the competent authorities over operators, and therefore the Law for the Regulation of Nuclear Source Material, Nuclear Fuel and Reactors [Law No. 166] was revised to enhance safety checks and to regulate the necessary measures to prevent criticality at nuclear fuel manufacturing factories.

It has been demonstrated clearly that the indemnity amounts defined in the Compensation Law were unrealistically low, and thus they were revised as described above. Certain measures were also taken with regard to the Atomic Energy Commission. This Commission used to exist under the auspices of the promotional body which is the Science and Technology Agency, and its secretariat was provided by the STA. Now, this Commission is founded under the authority of the Prime Minister and has about 100 employees of its own. In addition, within the Energy Agency of the Ministry of Economy and Industry, the government has established an agency specialising in atomic energy safety measures in order to strengthen the safety system.

Finally, I would like to talk a little about the future of our village. The residents of Tokai-mura have greatly changed their attitude after this accident. They know quite well, nevertheless, that the village is economically dependent upon the nuclear industry and thus their attitude has not drastically changed to an anti-nuclear one, but they are now much more prudent about atomic energy promotion.

At present, the Atomic Energy Institute and the High-Energy Accelerator Development Agency have plans to construct a proton accelerator. Thus, the residents aspire to the model of a high technological city of research and I believe this could be our future.

QUESTIONS/DISCUSSION

Patrick Reyners: Thank you very much Mr. Murakami for this extremely interesting and detailed presentation. I think that you have made it clear that even in a country which has sophisticated legislation and nuclear safety institutions, you can never be completely sure how such legislation and institutions will function until they are put to the test of a real accident. From this prospective, the events which took place in Tokai-mura are of course very relevant to our discussions during this Workshop. In addition, we have discussed procedural arrangements for compensation. We discussed this morning in particular the use of friendly settlement, and I think it was quite impressive to see the degree of pragmatism and flexibility which was demonstrated by all parties concerned in arranging for compensation for victims of the Tokai-mura accident. I would now like to invite questions and comments, and will start with pleasure with our president.

M. le Préfet Deschamps (President): I would like to ask the Mayor what he meant by “damage caused by rumours” within the Prefecture.

Mr. Murakami: As for damage caused by rumour, there is a construction enterprise quite near this JCO nuclear plant. Orders for construction materials which had been placed with this enterprise could not be delivered normally because the government body which had ordered the materials refused to accept them due to the proximity of this enterprise to the accident site. Also, in the village, there are many kinds of agricultural products and also agricultural derivative products. Even those products which had already been delivered before the accident were returned to the manufacturers and farmers because of this accident. In addition, there were restaurants and hotels which suffered damage for a longer period from this kind of rumour, as they could not get clients to come to their establishments. Finally, and this is quite strange, but I have even heard of some cases in which the residents of Tokai-mura who lived within the 10 kilometre radius of the accident were refused when they requested lodgings at hotels outside the village in the aftermath of the accident. The origins of these kinds of rumours were the instructions given to residents to remain indoors within the 10 kilometre radius.

Dr. Norbert Pelzer (German delegation): Thank you Mr. Mayor. May I ask an additional question with regard to the damage caused by rumours? I understand that companies suffered loss of turnover because they could not do business. Has this been compensated under the Japanese law or under any measures taken locally? I ask this question because loss of turnover is a pure economic loss and in some legal systems, it may not be compensated.

Mr. Murakami: As for the damage caused by returned merchandise or by a decrease in sales etc., a disaster indemnity study group was established within the Science and Technology Agency. Also, JCO established its own indemnity standard and they decided to pay this kind of indemnity themselves. Therefore, these two types of measure decided the amount and who should pay such indemnities.

M. Fabrice Levasseur (French delegation): Vous avez fait un état assez précis sur le montant total de l'indemnisation, et je voulais savoir si, à ce jour, puisque l'on approche *a priori* de la fin du règlement de ce sinistre, vous avez également pu faire une estimation des frais engendrés par la gestion de ce sinistre. Est-ce que la question des frais de gestion des demandes en réparation a été

étudiée ou est-ce que le JCO a déjà fait une estimation sur le coût ? (ENGLISH – You have provided quite specific data on the total amount of compensation and I would like to know whether, to date, seeing as we are *a priori* approaching the final settlement of this accident, you have carried out an estimation of the costs incurred in managing this accident. Has there been a study on the claims handling costs or has JCO already carried out an estimation of these costs?)

Mr. Murakami: As I have already explained, compensation payments were negotiated between JCO and Sumitomo Metal Mining Co. with all those victims, and in the course of these negotiations, JCO and Sumitomo signed the indemnity agreement, including the legal charges and so on. Does this provide an answer to your question?

M. Fabrice Levasseur (French delegation): Vous avez précisé que JCO a utilisé du personnel pour faire ces tâches. Cela a-t-il été appréhendé en chiffres au-delà du nombre de personnes de JCO ? Le coût de la main-d'œuvre, c'est-à-dire du personnel de JCO qui est intervenu pour régler l'indemnisation, a-t-il été établi pour JCO elle-même ? (ENGLISH – you specified that JCO used its personnel to carry out these tasks. Has there been an estimation of the cost of such actions beyond the number of JCO personnel concerned? Have the labour costs, i.e. the costs incurred by JCO in respect of its personnel involved in managing the claims, been established by JCO?)

Mr. Murakami: No, these kinds of costs which were assumed by JCO or Sumitomo Metal Mining Co. were not calculated at all. As I have already explained, pursuant to the applicable law, the maximum possible indemnity amount was only 1 billion JPY. This amount was relatively low and could not cover all the losses or damage, and therefore from the start we had decided to negotiate with the parties liable in respect of this accident for indemnification. Therefore all those costs and expenses which were incurred by JCO and Sumitomo Metal Mining Co. are the responsibility of their own companies and are not calculated as indemnities.

M. Denys Rousseau (French Delegation): Vous nous avez expliqué que les 7 000 dossiers qui ont donné lieu à indemnisation couvraient tout le territoire de la préfecture d'Ibaraki. Quelle était la nature des relations entre Monsieur le Maire de Tokai et les maires des autres communes avoisinantes? (ENGLISH – You explained to us that the 7 000 claims which gave rise to compensation covered all the territory of the Ibaraki prefecture. What was the nature of your relations, as Mayor of Tokai-mura, with the mayors of the neighbouring communes?)

Mr. Murakami: By way of example, there is a town called Koga which is located quite far away from the accident site, but the products of this town could not be sold because of the accident. However, neighbouring cities which belong to another prefecture did not suffer from these kinds of rumours and they sold their products as normal. It was the prefecture which took charge of all the communities of the Ibaraki prefectures, but only Tokai-mura was independently acting.

Dr. Norbert Pelzer (German Delegation): Thank you very much Mr. Murakami. I would like to ask whether people who alleged that they had suffered damages brought actions before the courts and whether there are still court procedures pending? If so, do you have any idea of the subject of those procedures – do they concern personal injury or economic damage? And could you give any indication of the extent of the damage in monetary figures?

Mr. Murakami: Unfortunately I do not have detailed information on the cases before the courts, but I have some information which I obtained from the newspapers. For example, there is a company which sold a large quantity of food products to the supermarkets and due to this accident, they completely lost this market, which even two years after the accident could not be recovered. They have therefore requested compensation of several billion JPY. There are also other cases concerning health problems. Certain persons suffer from psychological damage and there are others who claim to have suffered detriment to their health – they all claim compensation for these types of damages. In

any event, this is the first time we have had court cases in Japan in relation to a nuclear accident and therefore we may identify some solutions as we go along.

Mme Sylvie Rénier (French Delegation): Après l'accident, il y a eu une quantité de mesures (exemple : de contamination des denrées) effectuées sur le terrain. Ont-elles été utilisées/utiles dans le processus de décision ou bien les décisions ont-elles été prises sur des critères politiques ? [ENGLISH – Following the accident, there were numerous measurements carried out (e.g. contamination of foodstuffs) in the field. Were these measurements used or useful in the decision-making process, or were decisions made on the basis of political criteria?]

Mr. Murakami: The evacuation decision was based, not on political or administrative criteria, but on the following three pieces of information which we had and which were quite important. First, JCO employees had come to the village office with a map showing the area where residents should be evacuated. Second, there was a specialist present who stated that besides the radioactivity, there was a possibility of neutron beams being present in the vicinity. Thirdly, we were also aware that the employees of JCO and the Sumitomo Metal Mining Co., whose workplace was situated further away from the accident site than the residents, had already been evacuated only 15 minutes after the accident. These three pieces of information made me decide upon evacuation.

Mme Sylvie Rénier (French delegation): Je vous prie de m'excuser. Je n'ai pas été assez claire. Ma question ne concernait pas les décisions prises à court terme dans la phase d'urgence mais les décisions qui ont suivi sur l'indemnisation, les mesures sur le terrain, les activités ayant pu être mesurées sur les denrées ou la contamination déposée à l'extérieur. La question portait plutôt sur les décisions d'indemnisation à plus long terme. (ENGLISH – Please excuse me. My question was not clear enough. My question did not relate to those decisions made in the short term during the emergency phase but rather the decisions which followed on compensation, measures in the field, activity measurements in foodstuffs or external contamination. The question focused rather on longer-term compensation decisions.)

Mr. Patrick Reyners (NEA Secretariat): Yes this is a difficult issue: the question of determining to what degree the recorded contamination in the vicinity of the plant had an impact on the decision to allocate compensation or not. Was this scientific criteria directly influential on the decision to provide compensation and the amount awarded?

Mr. Murakami: As mentioned, there were different kinds of evaluation of the damages by scientific means. There are, of course, the principles which were established by JCO in December concerning the principles governing allocation of compensation.

Mr. Patrick Reyners (NEA Secretariat): I think it is interesting to note indeed that such criteria were, to a large extent, proposed and negotiated directly between the parties concerned, and particularly by the company responsible for the accident and not by referring to pre-established regulatory standards.

Mr. Walter Gehr (Austrian Delegation): Thank you very much Mr. Mayor for having taken the trouble to come to Europe to speak to us on this theme. Mr. Mayor, you described how an atmosphere of complacency and the myths of safety led to the unpreparedness of JCO to face the claims of your population. Here, I would like to have a point of clarification. Is it correct that it is through negotiations with the parent company of JCO and via your political contacts with the ruling party in Japan (LDP), that you managed to negotiate, for your population, compensation amounts in excess of those provided for by law at the time of the accident.

Mr. Murakami: It is the case that Sumitomo Metal Mining Co. paid about 15 times more than the amount previously defined by law.

TOKAI-MURA ACCIDENT, JAPAN THIRD PARTY LIABILITY AND COMPENSATION ASPECTS

by the Secretariat of the OECD Nuclear Energy Agency*

Summary of events

The accident

On 30 September 1999, at 10.35, Japan's first criticality accident occurred in a conversion test building of a nuclear fuel fabrication plant in Tokai-mura, in the Ibaraki Prefecture. This plant is operated by JCO, a wholly-owned subsidiary of Sumitomo Metal Mining Co. (SMM) of Tokyo. A state of criticality continued on and off for approximately 20 hours following the initial criticality incident. The neutron dose rate had decreased below the limit of detection by approximately 06.30 on 1 October 1999.

This irradiation accident was rated Level 4 on the International Nuclear Event Scale (INES), indicating an event without significant off-site risk. The three workers directly involved in the accident were exposed to high levels of radiation and accordingly their health was adversely affected.¹ Twenty-four JCO personnel engaged in operations to stop criticality were subject to planned exposure. One hundred and forty-five JCO employees, 60 government officials and 207 local residents also received radiation doses of varying levels.

Authorities' response

Emergency measures (chronological order)

The accident was first notified to the Science and Technology Agency (STA) on 30 September 1999 at 11.19.

At 12.15, the local authorities in Tokai-mura established an Emergency Response Headquarters and the Mayor of Tokai-mura issued a recommendation to residents of his locality to shelter indoors.

* This study was prepared by the Secretariat of the OECD Nuclear Energy Agency in collaboration with the Japanese authorities. It was published in *Nuclear Law Bulletin* No. 66, December 2000.

1. Two of them subsequently died on 21 December 1999 and 27 April 2000 respectively.

At 14.30, the STA set up its Countermeasure Headquarters. However, in compliance with the 1961 Basic Law for Countermeasures against Disaster,² the Government Accident Countermeasure Headquarters headed by the Minister for Science and Technology were established at 15.00, and the two Headquarters merged.

At 15.00, the Mayor of Tokai-mura issued a recommendation to residents living within a 350 metre radius from the site of the accident to evacuate the area.³

At 15.30, the STA set up Local Countermeasure Headquarters in the STA's Safety Inspection Office at the Tokai facility in order to carry out on-site investigations.

A Government Task Force for the Accident headed by the Prime Minister was established at 16.00.

At 22.30, the Governor of Ibaraki Prefecture issued a recommendation to the 310 000 residents living within a 10 km radius from the plant to shelter indoors.⁴

On 1 October 1999, the Governor of Ibaraki Prefecture requested the closure of schools within a 10 km radius from the site and the suspension of harvesting of crops and vegetables.⁵

On 3 October 1999, the local government took measures to provide free medical check-ups for people living within a 350 metre radius of the accident. In fact, by 12 October 1999, examinations to detect radioactive contamination had been conducted for 74 633 residents.

Pursuant to the Task Force Plan issued by the Japanese Government on 4 October 1999 to deal with the consequences of the accident, an Investigation Committee for the Critical Accident at the Uranium Processing Plant was established by the Nuclear Safety Commission on 7 October 1999. This Committee issued its "Urgent Recommendations – Interim Report" on 5 November 1999.⁶ This Interim Report described the social and economic effects of the accident as follows:

"With evacuation of approximately 50 households within 350 metres and the recommendation to remain indoors for approximately 300 000 people living within a 10 km radius, transportation facilities were cancelled and schools and other public facilities were temporarily closed as were private companies. The effects of the accident were very large both socially and economically. Residents living near the site were not only inconvenienced due to the evacuation and the recommendation to stay indoors, but they also were subjected to the mental and physical effects caused by rumours. At the same time, sufficient measures including psychological counselling are necessary. Following the accident, there are many adverse effects due to rumours from misunderstanding".

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2. This Law, which deals principally with natural disasters, was not deemed appropriate for the countermeasures necessary for this criticality accident: pursuant to the 1961 Law, local governments are directly responsible for the disaster prevention system of nuclear facilities, upon the advice of the government. In order to strengthen the emergency response regime, a Special Law on Emergency Preparedness for Nuclear Disaster was enacted in December 1999 in order to clarify the responsibilities of the government, local authorities and operators in nuclear emergencies.
 3. One hundred and sixty-one persons were concerned by this recommendation, which was lifted at 18.30 on 2 October 1999.
 4. This recommendation was lifted at 16.30 on 1 October 1999.
 5. The recommendation suspending harvesting was lifted at 18.30 on 2 October 1999.
 6. The final report was issued by the Investigation Committee on 24 December 1999.

Measures concerning compensation claims

On 4 October 1999, JCO opened up a contact point to facilitate the consultation of victims who were encouraged to submit an application form with detailed information on the damage suffered.

Pursuant to Section 18 of the Law on Compensation for Nuclear Damage,⁷ a Government Ordinance was issued on 22 October 1999 to establish a Dispute Reconciliation Committee for Nuclear Damage Compensation. Members of this Committee, which was set up at the STA, included lawyers, medical experts and nuclear engineering experts. Also on 22 October 1999, the STA established the Nuclear Damage Investigation Study Group to analyse the accident, damage and case studies, and to establish criteria to determine which nuclear damage should be compensated. This Study Group consisted of legal experts, university professors, nuclear engineering and radiation experts etc. with knowledge of, or engaged in practices related to nuclear damage compensation regimes, third party liability or insurance, in order to facilitate prompt and efficient negotiations between the parties. According to press reports, the nuclear insurance pool was to consult with the Study Group in order to assess compensation amounts.

By 30 September 2000, 7 025 claims had been filed by citizens, businesses and industrial organisations. Just before the end of 1999, the prefectural government and other local authorities offered mediation between JCO and victims for an early settlement. The following agreement was reached between JCO and the local authorities: JCO committed itself to pay approximately half of the claimed amounts to victims as a form of provisional payment before the end of 1999, to settle up as early as possible in 2000, and not to apply any predefined restrictions in terms of limitation periods for submission of claims and geographical scope. JCO's provisional payments amounted to 5.4 billion Japanese yen (JPY) by the end of December 1999 and a Special Consultation Centre was set up in the Ibaraki Prefecture Office from 31 January to 25 February 2000 in order to pursue negotiations with victims on the claims introduced. Over 98% of these claims were settled by 30 September 2000.

Liability and compensation issues: implementation

Damage subject to compensation

On 26 May 2000, the STA Nuclear Damage Investigation Study Group finalised its report establishing guidelines to determine what damage caused by the Tokai-mura accident would be qualified as “nuclear damage” under Section 2(2) of the Compensation Law,⁸ and thus should be compensated. Its report is based on domestic judicial precedents, examples in other countries and information obtained from on-site investigations. It provided an indication of the extent to which a causal relationship must be proven, and it established guidelines on potential compensation with regard to eight categories of damage as follows:

- *Personal injuries*: people suffering from personal injuries are eligible to receive compensation if they can prove that their injuries are radiation injuries caused by exposure to radiation or radioactive nuclides released as a result of the accident.

7. See Annex I related to legislation governing the compensation of nuclear damage.

8. Idem.

- *Medical examination expenses (people)*: compensation will be given to anyone who was in Ibaraki Prefecture at any time during the period from the occurrence of the accident (10.35 on 30 September 1999) to the lifting of the evacuation recommendation (18.30 on 2 October 1999), and who incurred expenses in respect of a medical examination (before 30 November 1999) for the purpose of determining whether any physical injury had resulted from the accident.
- *Evacuation expenses*: transportation, hotel and other incidental expenses which were paid until the evacuation recommendation and recommendation to stay indoors were lifted are eligible for compensation.
- *Examination expenses (property)*: if property was in Ibaraki Prefecture at the time the accident occurred, expenses incurred in respect of examination of the said property (before 30 November 1999) can be recognised as damage.
- *Contaminated property*: in the case of movable property: if the property was in Ibaraki Prefecture at the time the accident occurred and if the value of the property has depreciated as a result of the accident, the portion of the value lost or reduced can be recognised as damage; in the case of real estate: if there was no firm intention to sell such property, it is not subject to compensation; if however there were cancellations of real estate sale agreements, refusal of loans with real estate as security or a reduction in planned sale prices, or if there was reduction of rent or cancellation of lease agreements after the accident, if the claimant proves the rationality of the claim, such claims may be subject to compensation.
- *Lost income*: anyone whose residence or place of work is in the area subject to the recommendations, and who was unable to work as a result of the administrative action, is eligible for compensation in respect of his/her lost or reduced income.
- *Business damage (both due to physical effects and to rumour)*: to be qualified as damage, there must be a consequential relationship between the accident and the economic loss; to determine causality, the time at which such loss or damage was caused, and the distance from the accident site are the most important factors: economic loss suffered between the time of the accident and 30 November 1999, within a 10 km radius of the accident site, and caused by loss of custom which is estimated to be reasonable given the circumstances of the accident, leading to an actual decrease in income, is considered to satisfy the causality criteria and is deemed eligible for compensation.
- *Mental suffering*: mental anguish alone, without any personal injury, is not recognised as damage unless the claimants can irrefutably prove a causal relationship and the proportionality of the amount of compensation sought.

The Japan Atomic Energy Insurance Pool (43 non-life insurance companies) determined its own claims handling standards for damage resulting from the accident. Based on the discussions of the Study Group, such standards are in line with the Study Group guidelines.

Compensation amounts awarded

By 30 September 2000, 7 025 claims had been filed. According to the STA, almost all compensation in respect of the accident had been awarded by 30 September 2000: 98% of the claims

were settled for a total amount of 12.73 billion JPY. Since it was clear that the amount of compensation JCO could provide by itself⁹ was insufficient, SMM provided assistance in respect of the payment of the remainder. The payment made to JCO by the Japan Atomic Energy Insurance Pool was limited to 1 billion JPY, namely the amount insured by JCO.

The majority of claims concerned economic loss caused by consumers' behaviour based on rumour.

The following groups of persons were affected by the accident and presented claims against JCO:

Workers

Under the Workers' Accident Compensation Insurance System,¹⁰ compensation can be paid if claimants were exposed to more than 0.25 Sieverts of radiation, enough to cause acute radiation poisoning. The government ruled that the three JCO workers at the site of the accident, who were exposed to massive amounts of radiation, were diagnosed as having received acute radiation injuries and that the damage was directly related to their activities at the plant. Therefore, under the Workers' Accident Compensation Insurance Law the Japanese Government is required to pay compensation for medical expenses and loss of earnings to the worker who survived the accident, as well as funeral expenses and a compensation pension to the survivors of the two workers who died. In this respect, on 14 January 2000, the Ministry of Labour stated that it would examine the possibility of exercising a right of recourse against JCO and SMM for part of the amount of compensation to be awarded to the three workers directly exposed (or to their families). The Worker's Accident Compensation Insurance Law provides for the exercise of such a right of recourse if the accident was caused through the company's negligence or intentional acts or omissions.

Section 3(1) of the Law on Compensation for Nuclear Damage provides that if the three JCO workers have suffered damage over and above the limit established in the Workers' Accident Compensation Insurance Law, they are entitled to receive compensation from JCO for the total amount of damage suffered, minus any benefits which they received under the above legislation.¹¹ However, to date these workers have only received compensation on the basis of the workers' compensation legislation.¹²

Residents

According to the information available to the NEA Secretariat, JCO paid a total of 20 million JPY to households living within a 350 metre radius from the plant in the form of "consolation payments". Such payments would not appear to be based on the JCO's obligations under the

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9. It is very difficult to estimate how much compensation JCO could provide. JCO's assets were estimated to be approximately 4 billion JPY, but in general, companies cannot mobilise the full amount of the estimated value of their assets.
 10. See Annex I related to legislation governing the compensation of nuclear damage.
 11. Section 4 of the Supplementary Provision to the Compensation Law.
 12. The total amount of compensation paid to the three workers pursuant to the Workers' Accident Compensation Insurance Law is estimated at 120 million JPY. However, the NEA Secretariat could not obtain official confirmation of this figure.

legislation on compensation for nuclear damage, but rather they represent a Japanese legal tradition whereby discretionary payments are offered to victims of an accident by the persons responsible.

A number of residents in this zone deemed the above-mentioned consolation payments to be insufficient, and therefore introduced claims for compensation in excess of the initial payment described above to cover *inter alia* the cost of evacuation and medical examinations.

Industrial and Agricultural Activities

Claims were entered against JCO in respect of losses ensuing from the accident in the fields of agriculture (farming and fishing) and industry, and for costs incurred by the village in its management of the consequences of the accident.

The agricultural claims stemmed from reductions in demand for local foodstuffs after the accident. Shipment of the new harvest had to be suspended for three days after the criticality. Fishery co-operatives also suspended operations for three days, and the food processing industry voluntarily suspended shipments. Tokai is a major supplier of food to the Tokyo metropolitan area.

Information on the amounts of compensation paid in respect of agricultural and industrial activities is contained in the table reproduced in Annex II.

Annex 1

LEGISLATION GOVERNING THE COMPENSATION OF NUCLEAR DAMAGE

Compensation of nuclear damage

The principles governing compensation of nuclear damage in Japan are set out in the Law on Compensation for Nuclear Damage (Law No. 147 of 17 June 1961) as amended (“the Compensation Law”), its implementing ordinance (Cabinet Order No. 44 of 6 March 1962) as amended, and the Law on the Indemnity Agreement for Compensation of Nuclear Damage (Law No. 148 of 17 June 1961) as amended (“the Indemnity Law”).

Japan is not a Party to either the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy or the 1963 Vienna Convention on Civil Liability for Nuclear Damage. It has, however, incorporated in its legislation a number of the principles embodied in both Conventions.

The Compensation Law provides for the strict, exclusive and unlimited liability of the operator of a nuclear installation (Sections 3 and 4) in respect of nuclear damage caused, *inter alia*, by the manufacture of nuclear fuel material [Section 2(1)(ii)]. Nuclear damage is defined as any damage caused by the effects of the fission process of nuclear fuel material, or of the radiation from nuclear fuel material etc., or by the effects of the toxic nature of such material (Section 2).

The Ordinance on the Enforcement of the Compensation Law establishes in Section 2(iv) that the manufacture of such nuclear fuel elements must be covered by financial security of 1 billion JPY [approximately 9.3 million US dollars (USD)]. The Ordinance was amended in December 1999 to increase the amount of financial security which the operator of a nuclear installation is obliged to maintain. The compulsory financial security to cover a facility such as the JCO uranium conversion plant at Tokai-mura was raised to 12 billion JPY (approximately 114.4 million USD). The Amending Ordinance entered into force on 1 January 2000.

The Indemnity Law provides that the government may conclude an agreement with the operator, under which the government undertakes to indemnify the operator from his loss arising from compensating nuclear damage not covered by his financial security, in return for an annual indemnity fee. This legislation does not apply to the Tokai-mura incident, as the damage is covered by the insurance policy.

Section 16 of the Compensation Law provides that if the total damage exceeds the funds available from insurance cover, the government may provide financial assistance to victims if approved by the Parliament.

Since there is no specific provision governing the limitation period during which claims for compensation for nuclear damage should be entered, the general rules¹³ governing prescription under the law of tort pursuant to the Civil Code are applicable.

Section 18 of the Compensation Law governs the possibility of establishing a Dispute Reconciliation Committee for Nuclear Damage Compensation, which shall mediate in any dispute arising from compensation of nuclear damage, and shall investigate and assess nuclear damage as necessary to settle such disputes.¹⁴ Cabinet Order No. 281, adopted on 16 November 1979, further provided that the Committee members shall consist of a maximum of ten specialists in the legal, nuclear engineering, medical or other fields related to nuclear energy. These members shall be appointed by the Minister of Science and Technology.

Compensation regime for radiation workers

Radiation workers in Japan are subject to the general workers' compensation regime. This is comprised of the Labour Standards Law (No. 49 of 7 April 1947), which governs the relationship between employers and employees, and the Workers' Accident Compensation Insurance Law (No. 50 of 7 April 1947), which regulates insurance issues between the government – through the Ministry of Labour, Labour Standards Offices and Labours Standards Inspection Offices – and employees.

The Labour Standards Law in Chapter VIII (Sections 75-88) lays down principles governing the right to compensation of workers in the event of a work-related accident. Under this Law, the right to introduce a compensation claim shall be prescribed if an action is not brought within two years. The Workers' Accident Compensation Insurance Law regulates terms and conditions for the implementation of compensation awards under the Labour Standards Law.

Pursuant to the Workers' Accident Compensation Insurance Law, in the event of a work-related accident, the government indemnifies the employees with funds arising from insurance premiums contributed by employers and some government subsidies. However, if the compensation amount exceeds the limit calculated pursuant to the Workers' Accident Compensation Insurance Law,¹⁵ the employer pays compensation beyond such limit on the basis of the Law on Compensation for Nuclear Damage.

The Workers' Accident Compensation Insurance Law provides for a right of recourse of the government against the employer if the accident resulted from the employer's wilful act or serious negligence.

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13. Under Section 724 of the Civil Code, the right to compensation for damage shall be extinguished if an action is not brought within three years from the date on which the person suffering damage had knowledge both of the damage and of the person liable for such damage. The right to compensation shall also be fully extinguished twenty years after the date on which a tort occurs.
 14. Such a Committee was set up on 22 October 1999 (see *supra*).
 15. The Law does not establish a maximum limit, as this amount varies according to the worker's situation. The Law describes, however, the manner in which this limit should be calculated on the basis of different factors including e.g. age. It should be noted, however, that there is no limit for expenses incurred in respect of medical treatment.

Annex 2

**COMPENSATION PAID BY JCO IN RESPECT OF THE ACCIDENT
OF 30 SEPTEMBER 1999¹⁶**

Type of industry	Number of claims settled	Percentage of total number of claims settled	Amount paid (in billions of yen)	Percentage of total amount
Agriculture	735	10.7	1.26	10
Fisheries	22	0.3	0.29	2.3
Manufacture of foodstuffs	1 178	17.1	3.82	30.1
Manufacture (except foodstuffs)	402	5.8	0.78	6.2
Transportation (people/goods)	222	3.2	0.24	1.9
Wholesale, retail sale	1 218	17.7	1.76	13.9
Food and drink industry (e.g. restaurants, bars)	905	13.1	0.81	6.4
Tourism	501	7.3	2.03	16
Others	1 702	24.7	1.69	13.3
Total	6 885	100	12.68	100

16. Situation at 22 September 2000.

L'ACCIDENT DE TOKAI-MURA AU JAPON ASPECTS DE RESPONSABILITÉ CIVILE NUCLÉAIRE ET DE RÉPARATION

par le Secrétariat de l'Agence de l'OCDE pour l'énergie nucléaire*

Résumé des événements

L'accident

Le 30 septembre 1999, à 10h35, le premier accident de criticité survenu au Japon se produit dans le bâtiment de conversion expérimentale d'une installation de fabrication de combustible nucléaire à Tokai-mura dans la Préfecture d'Ibaraki. Cette installation est exploitée par JCO, une filiale à 100 % de Sumitomo Metal Mining Co. (SMM) de Tokyo. La situation de criticité dure pendant environ 20 heures après le premier accident de criticité. Le débit de dose de neutrons repasse sous le seuil de détection à environ 6h30 le 1^{er} octobre 1999.

L'accident d'irradiation sera classé au niveau 4 de l'Échelle internationale des événements nucléaires (INES), indiquant un événement sans risque significatif hors site. Les trois employés directement impliqués dans l'accident ont été exposés à des niveaux élevés de rayonnements et, en conséquence, leur santé a été gravement affectée¹. Vingt-quatre employés de JCO engagés dans des opérations visant à arrêter la criticité ont été soumis à une exposition concertée. Cent quarante-cinq employés de JCO, 60 agents administratifs et 207 résidents locaux ont également reçu des doses de rayonnements à divers niveaux.

Réaction des autorités

Mesures d'urgence (ordre chronologique)

L'Agence de la science et de la technologie (STA) est la première autorité nationale à recevoir notification de l'accident, le 30 septembre 1999 à 11h19.

À 12h15, les autorités locales de Tokai-mura établissent une unité centrale d'intervention en cas d'urgence et le maire de Tokai-mura recommande aux résidents de sa commune de se mettre à l'abri.

* Cette étude a été préparée par le Secrétariat de l'Agence de l'OCDE pour l'énergie nucléaire, en collaboration avec les autorités japonaises. Elle a été publiée dans le *Bulletin de droit nucléaire* n° 66, décembre 2000.

1. Deux d'entre eux sont morts par la suite, respectivement le 21 décembre 1999 et le 27 avril 2000.

À 14h30, la STA crée une unité centrale de contre-mesures (*Countermeasure Headquarters*). Cependant, conformément à la Loi fondamentale de 1961 sur les contre-mesures en cas de catastrophes², une unité centrale du Gouvernement pour les contre-mesures en cas d'accident, avec à sa tête le Ministre de la Science et de la Technologie, est créée à 15h00 et les deux unités fusionnent.

À 15h00, le maire de Tokai-mura adopte une recommandation prescrivant aux résidents vivant dans un rayon de 350 mètres autour du site de l'accident d'évacuer la zone³.

À 15h30, la STA établit une unité locale des contre-mesures auprès du Bureau d'inspection de la sûreté de l'installation de Tokai, afin de mener des enquêtes sur le site.

Une cellule de crise gouvernementale pour l'accident, placée sous la direction du Premier ministre, est constituée à 16h00.

À 22h30, le Gouverneur de la Préfecture d'Ibaraki adopte une recommandation prescrivant aux 310 000 personnes vivant dans un rayon de 10 km autour de l'usine de se mettre à l'abri⁴.

Le 1^{er} octobre 1999, le Gouverneur de la Préfecture d'Ibaraki demande la fermeture des écoles dans un rayon de 10 km autour du site, ainsi que la suspension des récoltes de céréales et de légumes⁵.

Le 3 octobre 1999, le Gouvernement local prend des mesures en vue de dispenser gratuitement des examens médicaux pour les personnes vivant dans un rayon de 350 mètres autour du lieu de l'accident. En réalité, au 12 octobre 1999, 74 633 résidents avaient subi un examen de détection de la contamination radioactive.

En vertu du Plan de la cellule de crise adopté par le Gouvernement japonais le 4 octobre 1999 pour traiter des conséquences de l'accident, un Comité d'enquête sur les causes de l'accident est établi par la Commission de sûreté nucléaire le 7 octobre 1999. Ce Comité adopte ses « Recommandations urgentes – Rapport provisoire » le 5 novembre 1999⁶. Ce Rapport provisoire décrit les effets sociaux et économiques de l'accident comme suit :

« Outre l'évacuation d'environ 50 familles dans un périmètre de 350 mètres et la recommandation de confinement concernant environ 300 000 personnes vivant dans un rayon de 10 km, les moyens de transport ont été interrompus, les écoles et d'autres installations publiques ont été temporairement fermées, comme l'ont été les sociétés privées. Les effets de l'accident ont été très étendus à la fois socialement et économiquement. Les résidents vivant près du site n'ont pas seulement été incommodés

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2. Cette Loi qui traite principalement des catastrophes naturelles n'a pas été jugée adéquate au regard des contre-mesures nécessaires à cet accident de criticité : en vertu de la Loi de 1961, les Gouvernements locaux, sur les conseils du Gouvernement, sont directement responsables du système de prévention des catastrophes dans les installations nucléaires. Afin de renforcer le régime d'intervention en cas d'urgence, une Loi spéciale sur la préparation aux situations d'urgence en cas de catastrophe nucléaire a été adoptée en décembre 1999 afin de clarifier les responsabilités du Gouvernement, des autorités locales et des exploitants en cas de situation d'urgence nucléaire.
 3. Cent soixante et une personnes sont concernées par cette recommandation, qui est levée à 18h30 le 2 octobre 1999.
 4. Cette recommandation est levée à 16h30 le 1^{er} octobre 1999.
 5. La recommandation prescrivant la suspension des récoltes est levée à 18h30 le 2 octobre 1999.
 6. Le rapport final a été adopté par le Comité d'enquête le 24 décembre 1999.

en raison de l'évacuation et de la recommandation de confinement mais ils ont également subi les répercussions mentales et physiques dues aux rumeurs sur l'accident. Par ailleurs, des mesures appropriées notamment des conseils psychologiques doivent être entreprises. À la suite de l'accident, on constate beaucoup d'effets défavorables en raison des rumeurs liées à la mauvaise compréhension »⁷.

Mesures concernant les demandes en réparation

Le 4 octobre 1999, JCO ouvre un point de contact pour faciliter la consultation des victimes, lesquelles sont encouragées à communiquer des informations détaillées sur les dommages subis à l'aide d'un formulaire à cet effet.

En vertu de l'article 18 de la Loi sur la réparation des dommages nucléaires⁸, une Ordonnance gouvernementale est adoptée le 22 octobre 1999 en vue d'établir un Comité de règlement des différends pour la réparation des dommages nucléaires. Les membres de ce Comité, qui est établi à la STA, comprennent des avocats, des spécialistes en médecine et des experts en ingénierie nucléaire. Le 22 octobre 1999, la STA crée également un Groupe d'enquête sur les dommages nucléaires pour analyser l'accident, les dommages et les études de cas, et pour établir des critères en vue de déterminer les dommages nucléaires devant être indemnisés. Ce Groupe d'enquête se compose d'experts juridiques, de professeurs d'université, d'ingénieurs nucléaires, d'experts en rayonnements, etc. ayant des connaissances ou étant engagés dans des pratiques relatives aux régimes de réparation des dommages nucléaires, à la responsabilité civile ou à l'assurance, afin de faciliter des négociations rapides et efficaces entre les parties. Selon des rapports de presse, le pool d'assurance nucléaire est supposé consulter le Groupe d'étude afin d'évaluer les montants de réparation.

Au 30 septembre 2000, 7 025 demandes avaient été présentées par des particuliers, des entreprises commerciales et des organisations industrielles. Juste avant la fin de 1999, le Gouvernement préfectoral et d'autres autorités locales avaient offert leur médiation entre JCO et les victimes pour un règlement rapide. L'accord suivant a été conclu entre JCO et les autorités locales : JCO s'engage à payer aux victimes environ la moitié des montants demandés sous la forme d'un paiement provisoire avant la fin de 1999, de régler le solde aussi vite que possible en 2000, et de n'invoquer ni délais de prescription d'introduction des demandes ni restrictions quant au champ d'application territorial. Les paiements provisoires de JCO s'élevaient à 5,4 milliards de yens (JPY) à la fin de décembre 1999 et un Centre spécial de consultation a été établi dans le Bureau de la Préfecture d'Ibaraki du 31 janvier au 25 février 2000 afin de poursuivre avec les victimes les négociations relatives aux demandes introduites. Plus de 98 % des demandes étaient réglées au 30 septembre 2000.

Aspects de responsabilité et de réparation : mise en œuvre

Dommages soumis à réparation

Le 26 mai 2000, le Groupe d'enquête sur les dommages nucléaires de la STA achève son rapport dans lequel il fixe des directives pour déterminer quels dommages causés par l'accident de

7. Traduction libre du Secrétariat.

8. Voir annexe I relative à la législation régissant la réparation des dommages nucléaires.

Tokai-mura devraient être qualifiés de « dommages nucléaires » au sens de l'article 2(2) de la Loi sur la réparation des dommages nucléaires⁹, et ainsi devraient être indemnisés. Le rapport se fonde sur les précédents judiciaires nationaux, les exemples dans d'autres pays et les informations obtenues à la suite des enquêtes sur le site. Il indique dans quelle mesure un lien de causalité doit être prouvé, et il fixe des directives sur la réparation potentielle en ce qui concerne les huit catégories de dommages suivantes :

- *Dommages corporels* : les personnes souffrant de dommages corporels sont éligibles à recevoir une indemnisation si elles peuvent prouver que ces dommages ont été produits du fait des rayonnements causés par une exposition aux rayonnements ou aux nucléides radioactifs émis à la suite de l'accident.
- *Coûts des examens médicaux (personnes)* : une réparation sera accordée à toutes les personnes qui étaient à la Préfecture d'Ibaraki à tout moment entre la survenance de l'accident (10h35 le 30 septembre 1999) et la levée de la recommandation d'évacuation (18h30 le 2 octobre 1999) et qui ont encouru des dépenses relatives à un examen médical (avant le 30 novembre 1999) aux fins de déterminer si un dommage physique a résulté de l'accident.
- *Dépenses liées à l'évacuation* : les frais de transport et d'hôtel et les autres dépenses incidentes qui ont été encourues jusqu'à la levée des recommandations d'évacuation et de confinement sont éligibles à réparation.
- *Dépenses liées aux examens (biens)* : si le bien se trouvait dans la Préfecture d'Ibaraki au moment de la survenance de l'accident, les dépenses liées à l'examen dudit bien (avant le 30 novembre 1999) peuvent être reconnues comme un dommage.
- *Biens contaminés* : dans le cas d'un bien meuble : si le bien était dans la Préfecture d'Ibaraki au moment où l'accident est survenu et si la valeur du bien s'est dépréciée à la suite de l'accident, la part de la valeur perdue ou réduite peut être reconnue comme un dommage ; dans le cas d'un bien immobilier : s'il n'y avait pas d'intention ferme de vendre ce bien, il n'est pas sujet à réparation ; si cependant il y a eu annulation d'un contrat de vente du bien immobilier, un refus de prêt dont le bien immobilier constituait la garantie ou une réduction dans le prix de vente prévu, ou s'il y a eu une réduction du loyer ou l'annulation des contrats de location après l'accident, si le requérant peut prouver la rationalité de la demande, ces demandes peuvent être susceptibles de réparation.
- *Perte de revenus* : toute personne dont la résidence ou le lieu de travail est dans la zone soumise aux recommandations et qui était dans l'impossibilité de travailler à la suite des mesures administratives, est éligible à réparation en ce qui concerne sa perte ou sa réduction de revenu.
- *Dommages économiques (dus tant à des effets physiques qu'aux rumeurs)* : pour être qualifié de dommage, il doit y avoir un lien de causalité entre l'accident et la perte économique ; pour déterminer la causalité, le moment auquel cette perte ou dommage a été causé et la distance par rapport au site de l'accident, sont les facteurs les plus importants : la perte économique constatée entre le moment de l'accident et le 30 novembre 1999, dans un rayon de 10 km autour du site de l'accident, et causée par la perte commerciale qui est

9. Ibid.

estimée être raisonnable étant donné les circonstances de l'accident, résultant en une baisse réelle du revenu, est considérée comme satisfaisant le critère de causalité et est jugée éligible à réparation.

- *Souffrance psychologique* : les manifestations d'angoisse non accompagnées de préjudice corporel, ne sont pas reconnues comme un dommage à moins que le requérant ne puisse prouver de façon certaine un lien de causalité et la proportionnalité du montant de réparation demandé.

Le Pool d'assurance de l'énergie atomique du Japon (43 compagnies d'assurance non-vie) a déterminé ses propres normes de traitement des demandes en réparation pour les dommages résultant de l'accident. Basés sur les discussions du Groupe d'enquête, ces normes sont conformes aux directives du Groupe d'enquête.

Montants de réparation alloués

Au 30 septembre 2000, 7 025 demandes avaient été introduites. Selon la STA, presque toute la réparation relative à l'accident avait été versée au 30 septembre 2000 : 98 % des demandes ont été réglées pour un montant total de 12,73 milliards JPY. Le montant de réparation que JCO pouvait allouer à partir de ses propres fonds¹⁰ étant insuffisant, SMM a accordé son assistance quant au paiement du reste. Le Pool d'assurance de l'énergie atomique du Japon a versé à JCO 1 milliard JPY, à savoir le montant assuré par JCO.

La plupart des demandes visaient les pertes économiques résultant du comportement des consommateurs du fait des rumeurs.

Les groupes de personnes affectés par l'accident et ayant présenté des demandes contre JCO sont les suivants :

Travailleurs

Aux termes du système d'assurance de la réparation des accidents du travail¹¹, une réparation peut être accordée lorsque les requérants ont été exposés à plus de 0,25 Sieverts de rayonnements, dose suffisante pour causer un grave empoisonnement par les rayonnements. Le Gouvernement a reconnu que les trois travailleurs de JCO sur le site de l'accident qui ont été exposés à des doses massives de rayonnements, avaient subi de graves dommages dus aux rayonnements et que ces dommages étaient directement liés à leur activité à l'usine. Par conséquent, aux termes de la Loi relative à l'assurance de la réparation des accidents du travail, le Gouvernement japonais était tenu d'indemniser les dépenses médicales et la perte de revenu au travailleur qui a survécu à l'accident, ainsi que les dépenses afférentes aux funérailles et une pension de réparation aux ayants-droit des deux travailleurs qui sont morts. À cet égard, le 14 janvier 2000, le Ministère du Travail a déclaré qu'il examinerait la possibilité d'exercer un droit de recours contre JCO et SMM pour la part du montant de réparation ayant été allouée aux trois travailleurs directement exposés (ou à leur famille). La Loi

10. Il est difficile d'évaluer le montant de réparation que JCO a pu allouer. L'actif de JCO est estimé à environ 4 milliards JPY mais, en général, les sociétés ne peuvent pas mobiliser le montant total de la valeur estimée de leur actif.

11. Voir annexe I relative à la législation régissant la réparation des dommages nucléaires.

relative à l'assurance de la réparation des accidents du travail prévoit l'exercice d'un tel droit de recours si l'accident résulte de la négligence de la compagnie ou d'actes ou omissions intentionnels.

Il ressort de l'article 3(1) de la Loi sur la réparation des dommages nucléaires que si les trois travailleurs de JCO ont subi des dommages au-delà de la limite fixée dans la Loi relative à l'assurance de la réparation des accidents du travail, ils sont en droit de recevoir réparation de JCO pour le montant total des dommages subis sous réserve des sommes perçues en vertu de la législation susvisée¹². Toutefois, à ce jour les travailleurs n'ont reçu une réparation que sur la base de la législation relative à la réparation du travail¹³.

Résidents

Selon les informations obtenues par le Secrétariat de l'AEN, JCO a payé au total 20 millions JPY aux personnes vivant dans un rayon de 350 mètres autour de l'usine sous forme d'un « paiement de consolation ». Ce paiement ne semblerait pas se fonder sur les obligations de JCO aux termes de la législation sur la réparation des dommages nucléaires mais représentent plutôt une tradition juridique japonaise aux termes de laquelle des sommes sont versées discrétionnairement aux victimes d'un accident par les personnes responsables de cet accident.

Un certain nombre de résidents de cette zone ont estimé insuffisant le paiement de consolation susmentionné et ont par conséquent présenté des demandes en réparation d'un montant supérieur au paiement initial décrit ci-dessus, afin de couvrir notamment les coûts d'évacuation et les dépenses afférentes aux examens médicaux.

Activités industrielles et agricoles

Des demandes ont été introduites contre JCO eu égard aux pertes résultant de l'accident dans les domaines de l'agriculture (agriculture et pêche) et de l'industrie, et aux coûts supportés par le village dans sa gestion des conséquences de l'accident.

Les demandes relatives aux activités agricoles résultaient des réductions de la demande de produits alimentaires locaux après l'accident. Le transport de la nouvelle récolte a dû être suspendu pendant trois jours. Les coopératives de pêche ont également suspendu leurs opérations pendant trois jours et le secteur du traitement agro-alimentaire a volontairement suspendu les transports. La région de Tokai est l'un des plus gros fournisseurs d'alimentation à la zone métropolitaine de Tokyo.

Les informations relatives aux montants de réparation payés eu égard aux activités agricoles et industrielles figurent dans le tableau reproduit à l'annexe II.

12. Article 4 de la Disposition supplémentaire à la Loi sur la réparation.

13. Le montant total de la réparation versée aux trois travailleurs en vertu de la Loi relative à l'assurance de la réparation des accidents du travail est estimée à 120 millions JPY. Toutefois, le Secrétariat de l'AEN n'a pas pu obtenir une confirmation officielle de ce chiffre.

Annexe 1

LÉGISLATION RÉGISSANT LA RÉPARATION DES DOMMAGES NUCLÉAIRES

Réparation des dommages nucléaires

Les principes régissant la réparation des dommages nucléaires au Japon sont fixés dans la Loi sur la réparation des dommages nucléaires (Loi n° 147 du 17 juin 1961), modifiée (« Loi sur la réparation »), son Décret d'application (Décret du Conseil des Ministres n° 44 du 6 mars 1962), modifié, et la Loi sur les conventions d'indemnisation relatives à la réparation des dommages nucléaires (Loi n° 148 du 17 juin 1961), modifiée (« Loi sur les conventions d'indemnisation »).

Le Japon n'est Partie ni à la Convention de Paris de 1960 sur la responsabilité civile dans le domaine de l'énergie nucléaire, ni à la Convention de Vienne de 1963 sur la responsabilité civile en matière de dommages nucléaires. Il a cependant intégré dans sa législation certains des principes figurant dans ces deux Conventions.

La Loi sur la réparation prévoit la responsabilité exclusive, objective et illimitée de l'exploitant d'une installation nucléaire (articles 3 et 4) pour les dommages nucléaires causés, notamment, par la fabrication de combustible nucléaire [article 2(1)(ii)]. Par « dommages nucléaires » on entend tout dommage causé par les effets du processus de fission nucléaire subi par des combustibles nucléaires, par les effets des rayonnements émis par des combustibles nucléaires, ou dus à la nature toxique de ces matières (article 2).

Le Décret d'application de la Loi sur la réparation établit en son article 2(iv) que la fabrication de ces éléments de combustible nucléaire doit être couverte par une garantie financière d'1 milliard JPY [environ 9,3 millions de dollars des États-Unis (USD)]. Le Décret a été modifié en décembre 1999 pour augmenter le montant de la garantie financière que l'exploitant d'une installation nucléaire est tenu de maintenir. La garantie financière obligatoire pour couvrir une installation telle que l'usine de conversion d'uranium de JCO à Tokai-mura est désormais de 12 milliards JPY [environ 114,4 millions USD]. Le Décret d'amendement est entré en vigueur le 1^{er} janvier 2000.

La Loi sur les conventions d'indemnisation prévoit que le Gouvernement peut conclure avec l'exploitant une convention par laquelle il s'engage à indemniser ce dernier de toute somme qu'il devra verser en réparation de dommages nucléaires non couverts par sa garantie financière, en contrepartie d'une prime annuelle. Cette législation ne s'applique pas à l'accident de Tokai-mura car les dommages sont couverts par la police d'assurance.

L'article 16 de la Loi sur la réparation prévoit que, au cas où le coût total des dommages dépasse les fonds disponibles en vertu de la couverture d'assurance, le Gouvernement peut allouer une assistance financière aux victimes sous réserve de l'approbation du Parlement.

Étant donné qu'il n'y a pas de disposition spécifique régissant le délai pendant lequel des demandes en réparation des dommages nucléaires peuvent être introduites, les règles générales¹⁴ régissant la prescription aux termes du droit de la responsabilité civile quasi-délictuelle en vertu du Code civil, sont applicables.

L'article 18 de la Loi sur la réparation prévoit la possibilité d'établir un Comité de règlement des différends relatifs à la réparation des dommages nucléaires qui serait chargé d'une mission d'enquête et d'évaluation des dommages nucléaires nécessaire au règlement de ces différends¹⁵. L'Arrêté du Conseil des Ministres n° 281, adopté le 16 novembre 1979, prévoit en outre que ce Comité est composé de dix spécialistes au maximum dans les domaines juridique, d'ingénierie nucléaire, médical ou autre relatifs à l'énergie nucléaire. Ces membres sont désignés par le Ministre de la Science et de la Technologie.

Régime de réparation des travailleurs exposés aux rayonnements

Au Japon, les travailleurs exposés aux rayonnements sont soumis au régime général de réparation des travailleurs. Celui-ci comprend la Loi sur les normes du travail (n° 49 du 7 avril 1947), qui régit les relations entre employeurs et employés, et la Loi sur l'assurance de la réparation des accidents du travail (n° 50 du 7 avril 1947), qui réglemente les questions d'assurance survenant entre le Gouvernement – par l'intermédiaire du Ministère du Travail, des Bureaux de normes du travail et des Bureaux d'inspection des normes du travail – et les employés.

La Loi sur les normes du travail, dans son titre VIII (articles 75 à 88), fixe les principes régissant le droit à réparation des travailleurs dans le cas d'un accident du travail. Aux termes de cette Loi, le droit d'introduire une action en réparation est prescrit si une action n'est pas introduite dans un délai de deux ans. La Loi sur l'assurance de la réparation des accidents du travail réglemente les modalités et les conditions pour la mise en œuvre de la réparation allouée en vertu de la Loi sur les normes du travail.

En vertu de la Loi sur l'assurance de la réparation des accidents du travail, dans le cas d'un accident du travail, le Gouvernement indemnise les employés au moyen de fonds provenant des primes d'assurance versées par les employeurs et de certaines subventions du Gouvernement. Cependant, si le montant de réparation dépasse la limite calculée en vertu de la Loi sur l'assurance de la réparation des accidents du travail¹⁶, l'employeur verse le montant de réparation au-delà de cette limite sur la base de la Loi sur la réparation des dommages nucléaires.

La Loi sur l'assurance de la réparation des accidents du travail prévoit un droit de recours du Gouvernement contre l'employeur si l'accident a résulté d'un acte intentionnel ou d'une grave négligence de l'employeur.

14. En vertu de l'article 724 du Code civil, le droit à réparation pour les dommages s'éteint si une action n'est pas introduite dans le délai de trois ans à compter de la date à laquelle la personne ayant subi le dommage a eu connaissance tant du dommage que de la personne responsable de ce dommage. Le droit à réparation s'éteint également vingt ans après la date à laquelle le délit est intervenu.

15. Ce Comité a été constitué le 22 octobre 1999 (voir *supra*).

16. La Loi n'établit pas de limite maximum : ce montant varie en fonction de la situation du travailleur. La Loi décrit, cependant, la manière dont cette limite doit être calculée sur la base de différents facteurs dont l'âge par exemple. Il doit être noté, toutefois, qu'il n'y a pas de limite quant aux dépenses encourues du fait du traitement médical.

Annexe 2

RÉPARATION VERSÉE PAR JCO EU ÉGARD À L'ACCIDENT DU 30 SEPTEMBRE 1999¹⁷

Type d'industrie	Nombre de demandes réglées	Pourcentage du nombre total de demandes réglées	Montant payé (en milliards de yens)	Pourcentage du montant total
Agriculture	735	10,7	1,26	10
Pêche	22	0,3	0,29	2,3
Fabrication de produits alimentaires	1 178	17,1	3,82	30,1
Production (sauf produits alimentaires)	402	5,8	0,78	6,2
Transport (personnes/marchandises)	222	3,2	0,24	1,9
Vente en gros, au détail	1 218	17,7	1,76	13,9
Industrie de l'alimentation et de la boisson (e.g. restaurants, bars)	905	13,1	0,81	6,4
Tourisme	501	7,3	2,03	16
Autres	1 702	24,7	1,69	13,3
Total	6 885	100	12,68	100

17. Situation au 22 septembre 2000.

THIRD PARTY LIABILITY IN THE FIELD OF NUCLEAR LAW AN IRISH PERSPECTIVE

A. Purpose of paper

Ireland is not a signatory to the Paris Convention on Third Party Liability in the Field of Nuclear Energy (hereinafter referred to as “the Paris Convention”),¹ which was adopted on 29 July 1960 under the auspices of the European Nuclear Energy Agency (which later became the Nuclear Energy Agency – NEA) of the Organisation for European Economic Co-operation (now the Organisation for Economic Co-operation and Development – OECD). Neither is Ireland a signatory to the Vienna Convention on Civil Liability for Nuclear Damage (hereinafter referred to as “the Vienna Convention”) which was adopted on 21 May 1963 under the auspices of the International Atomic Energy Agency (IAEA). Ireland is, however, a member of both the NEA and the IAEA and, acutely conscious of the harm that might result to its citizens in the event of a major nuclear incident, maintains contact with both organisations by, *inter alia*, regularly attending the meetings of their governing bodies and various committees. Ireland therefore closely monitors developments in relation to both Conventions. Ireland has, to date, not ratified either Convention but this policy is kept under regular review particularly in the light of ongoing amendments to the Conventions.

The Paris Convention and the Convention of 31 January 1963 Supplementary to the Paris Convention (hereinafter referred to as “the Brussels Convention”),² which introduced a complementary system of indemnification of particularly costly nuclear damage from public funds, are currently being revised and the Amending Protocols are expected to be adopted during 2002.

Ireland is, however, a Party to the Brussels Convention of 27 September 1968 on Jurisdiction and the Enforcement of Judgements in Civil and Commercial Matters (hereinafter referred to as “BCJEJ”; see, on this subject, the article by P. Sands and P. Galizzi in *Nuclear Law Bulletin* No. 64) and is, along with the other member states of the European Union,³ bound by European Council Regulation No. 44/2001 of 22 December 2000 on jurisdiction and the recognition and enforcement of judgements in civil and commercial matters since its entry into force on 1 March 2002. This Council Regulation does not affect the substantive law to be applied to any claim under its aegis but rather is concerned with unifying the rules of conflict of jurisdiction in civil and commercial matters and simplifying the formalities in order to ensure the simple and rapid recognition of judgements in

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1. Please note that references to “the Paris Convention” in this article refer to the 1960 Paris Convention as amended by the Additional Protocol of 28 January 1964 and by the Protocol of 16 November 1982.
 2. Please note that references to “the Brussels Convention” in this article refer to the 1963 Brussels Convention as amended by the Additional Protocol of 28 January 1964 and by the Protocol of 16 November 1982.
 3. Except Denmark which remains bound by the BCJEJ.

member states bound by the Regulation. It does not, however, alter the basic jurisdictional rules established under the BCJEJ and it is not therefore proposed to refer to the Regulation hereafter.⁴

A simulated nuclear incident was held on 22 and 23 May 2001 at the Gravelines nuclear power plant near Dunkerque in France as part of the INEX 2000 Exercise. The INEX (International Nuclear Emergency Exercise) Programme, carried out by the NEA since 1993, responds to member states' concerns to promote means of ensuring effective co-ordination between the various bodies which have a role to play in the event of a nuclear accident, in order to ensure rapid and efficient management of such a situation. This programme is composed of a series of exercises simulating nuclear accidents in which interested countries may participate. For the first time, it was decided to organise a third party liability workshop as an integral part of this exercise. Ireland was invited to take part in this Workshop on the Indemnification of Damage in the Event of a Nuclear Accident which took place on 26-28 November 2001 in Paris and the original version of this paper was prepared in order to present the views of the Irish delegation on that occasion.

This paper will first set out in summary form the main provisions of the Paris Convention, the instrument under which issues of third party liability between the majority of NEA member states affected by any such incident would be resolved, and will then identify some of the advantages and disadvantages which would result from an application of the provisions of the Convention to Ireland and Irish citizens.

This paper will then consider how Irish victims of a nuclear incident might recover compensation for loss and damage caused by such an incident. For reasons set out below, the prevailing view is that Irish victims of such an incident could first bring their claim in Ireland or in France, that Irish law would apply to any such claim and that any judgement, including interlocutory judgement in such proceedings, could be enforced in the courts of any other European Union state, including France.

B. Brief summary of the Paris Convention

Where, as in the simulated Gravelines incident, a nuclear accident has occurred in a country (France) which is a Party to the Paris Convention and damage has been caused in a country which is also a Party to that Convention (for example, Belgium), then the provisions of the Convention will apply. The courts of these states will apply the Paris Convention as enacted into their own legal system. Substantive and procedural matters not directly governed by the Convention will, per Article 14 of the Paris Convention, be determined by national legislation.

Article 2 of the Paris Convention provides that the Convention does not apply “to nuclear incidents occurring in the territory of non-contracting states or to damage suffered in such territory, unless otherwise provided by the legislation of the Contracting Party in whose territory the nuclear installation of the operator liable is situated”. Therefore, individuals who suffer damage in a non contracting state, for example Ireland, would be required to bring actions under the ordinary third party liability laws where the injury is caused, as in this example, by the activities of a nuclear operator in a State Party to that Convention.

Territory includes the territorial sea of a State Party and it has also been recognised that the Paris Convention is applicable to incidents occurring and damage suffered on the high seas,⁵ provided

4. At the time of the simulated nuclear incident at Gravelines and of the related Workshop on Indemnification of Damage the BCJEJ was still applicable.

that the liable operator is subject to the Convention regime. It is clear from Article 2 that Contracting States may extend the territorial scope of the Convention by domestic legislation. In common with most Contracting Parties, France has not so extended the scope of the Convention.

Article 13 establishes a principle of exclusive jurisdiction, i.e. only the courts of the Contracting Party where the incident occurred will have jurisdiction over actions brought for damage caused by a nuclear accident which occurred in its territory. This of course only applies to actions brought under the Paris Convention and within its territorial scope.

Article 6(a) channels liability for claims caused by a nuclear incident onto the operator of the nuclear installation at which the incident occurred. The operator is only liable under the rules of the Convention and no other person will be liable for nuclear damage caused.

Article 3(a) provides that the operator is liable for “(i) damage to or loss of life of any person; and (ii) damage to or loss of any property[...] upon proof that such damage or loss [...] was caused by a nuclear incident [...]”. Whilst “nuclear incident” is widely defined in Article 1(a), the Convention does not address questions of proof of, for example, causation and damage and these are therefore “substantial or procedural” matters to be dealt with by national legislation – see Article 14(b). Article 14(c) provides that any such legislation “shall be applied without any discrimination based upon nationality, domicile, or residence”.

Article 8 sets time limits on the bringing of actions for compensation, namely ten years from the date of the nuclear incident. Article 8(c) further provides that national legislation may establish a limitation period of no less than two years from the date on which the person suffering damage had knowledge of or ought reasonably have known of both the damage and the operator liable. This period cannot however exceed the maximum ten-year limitation period under Article 8(a).

Article 7 puts a ceiling on the amount of compensation payable in respect of damage caused by a nuclear incident. Article 10 requires the operator to have and maintain insurance or other financial security in order to guarantee that compensation will be paid. It should be noted that the Brussels Supplementary Convention provides for additional compensation from public funds in the event that compensation under the Paris Convention is insufficient.

C. Application of the Paris/Brussels Convention Regime – advantages and limitations for Irish citizens

Possible advantages for Irish victims if Ireland were to ratify the Paris and Brussels Conventions

- (1) The Paris Convention provides a unified system of liability and recovery of compensation for nuclear damage throughout Convention States.
- (2) There is a guaranteed minimum sum of money available for the payment of compensation for damage caused as a result of a nuclear incident. Article 7 of the Convention provides that the maximum liability of the operator for a single incident cannot exceed 15 million Special Drawing Rights of the International Monetary Fund (SDRs).⁶ Contracting Parties may by

5. Recommendation of the Steering Committee of the NEA of 25 April 1968 [NE/M(68)1].

6. On 19 April 2002, 1 SDR = 1.26 USD.

legislation establish a greater or lesser⁷ amount of compensation and the OECD Steering Committee has recommended that domestic legislation should set the maximum liability of the operator at not less than 150 million SDR.⁸ The Paris Convention has, however, been supplemented in this regard by the Brussels Supplementary Convention. Application of the Brussels Supplementary Convention results in a total maximum of 300 million SDR being made available under the following three-tier structure: (1) 5 million SDR out of funds provided by insurance or other financial guarantee; (2) compensation of up to 175 million SDR out of public funds to be provided by the Contracting Party where the nuclear installation is located; and (3) compensation of up to 300 million SDR from public funds to be made available by all parties to the Convention according to the formula for contributions.

- (3) Article 10 of the Paris Convention requires the operator to have insurance or other financial security, as specified therein, in order to ensure that compensation will be paid.
- (4) The injured party is only required to prove causation and damage, and does not have to prove negligence or some other civil wrong or tort on the part of the operator as a condition precedent to recovery of damages. This is made clear in Article 3 of the Convention. From an Irish point of view, this is one of the few attractive aspects of the system of third party liability as currently established under the Paris Convention. The victim of a nuclear accident would under Irish law currently have to show that any loss or damage was not only caused by the nuclear operator (or other defendant) but also that this had resulted from the commission of a tort. The operator is liable for loss and damage, as defined in Article 3(a) of the Convention, upon proof that the same was caused by a “nuclear incident in such installation or involving nuclear substances coming from such installation, except as otherwise provided for in Article 4”. A “nuclear incident” is widely defined in Article 1 and would clearly cover incidents such as that simulated at Gravelines.
- (5) A decision of a court, competent under the Paris Convention to deal with the claim in question, will be enforceable in the territory of another Contracting Party once it becomes enforceable in the state of the competent court under Article 13(d) of the Paris Convention. This applies equally to interim judgements. The courts of the enforcing state cannot consider the merits of the judgement handed down in the state which decided the claim. Article 13(e) also provides that states against which an action is brought cannot, except in the case of measures of execution, invoke jurisdictional immunities before the court competent to hear the case.

Possible disadvantages for Irish victims if Ireland were to ratify the Paris and Brussels Conventions

There is a clear perception among non-nuclear states that the Paris and Brussels Conventions are balanced in favour of the nuclear industry. Of particular concern to Ireland in this regard would be the relatively low limits of compensation available under the Paris Convention (even where complemented by the Brussels Supplementary Convention), the limitation periods for bringing actions, the requirement that actions be taken in the courts of the state where the offending installation is located, the exclusive channelling of liability onto the operator, the narrow and uncertain definition of nuclear damage for which compensation is payable, the lack of guiding principles in respect of proof of causation and the existence of exemptions of operator liability.

7. Provided that such amount is not less than 5 million SDR.

8. Recommendation of the Steering Committee of the NEA of 20 April 1990 [NE/M(90)1].

- (1) The cap on the total compensation available under the Paris and Brussels Conventions system for all the victims of a nuclear accident is clearly insufficient to provide adequate compensation in the event of a serious nuclear accident. This remains the case despite the extra tiers of compensation from public funds and from the international fund provided under the Brussels Supplementary Convention. The maximum required to be paid under the Conventions to all victims of a single nuclear incident is 300 million SDR. It is very likely that such a sum of compensation would be inadequate to fully, or even substantially, compensate all victims of a major nuclear disaster.
- (2) The limitation periods for the institution of proceedings for loss and damage appear unduly restrictive. The ten-year limitation period provided for under Article 8 of the Paris Convention has been strongly criticised by many commentators as many of the side effects of nuclear damage do not become apparent until after ten years.
- (3) The effect of Article 13 of the Paris Convention is that only the courts of the country where the incident occurs have jurisdiction over actions for damage caused by such an incident. Non-national victims would therefore have no right to seek compensation in the courts of their own states and would have to take action in an unfamiliar and distant legal system.
- (4) Liability is limited to the nuclear operator and therefore, for example, a builder of an installation, a provider of a nuclear power plant or equipment or a state/local authority responsible for supervision of the plant could not be sued. Only the operator is liable under the rules of the Convention and no other person will be liable for nuclear damage caused.
- (5) Liability is further limited to (a) damage to or loss of life of any person and (b) damage to or loss of any property where the damage was caused by a nuclear incident at a nuclear installation (this paper does not consider the rules in relation to the transport of nuclear substances which are also dealt with in the Paris Convention). A number of issues arise in this regard as follows. No guidance is provided in the Paris Convention as to the concept of “nuclear damage” and it is unclear therefore if, for example, economic loss caused is recoverable under the Convention. The general view of commentators is that general environmental damage is not recoverable and there is also uncertainty as to whether and to what extent economic loss would be recoverable under the Convention.
- (6) An additional difficulty is caused by the failure of the Paris/Brussels Convention system to deal with the standard of proof in relation to both causation and damage. Although Article 3 of the Paris Convention effectively provides that the liability of the operator is absolute upon proof of causation, the Convention does not address the legal principles to be applied to ascertain causation and damage and/or the threshold of damage. Article 14(b) provides for a *renvoi* to national legislation in these circumstances but this of course involves the risk of the Convention being applied differently in different Contracting States.

In the event that the sums available for compensation are not sufficient to cover all losses sustained as a result of a nuclear incident, the apportionment of the amount available is also left to national legislation. This again runs the risk of the Convention being applied differently in each Contracting State.

- (7) Finally, Article 9 of the Paris Convention excludes liability on the part of an operator for damage caused by “a nuclear incident directly due to an act of armed conflict, hostilities, civil war, insurrection or, except insofar as the legislation of the Contracting Party in whose territory his nuclear installation may provide to the contrary, a grave natural disaster of an exceptional

character”. Given the events of 11 September 2001 in New York and Washington and the fear in Ireland that, for example, Sellafield may be the target of a terrorist attack in the future, this blanket exclusion of liability seems unjustifiable. It may be the case that such a terrorist attack would allow a complete exemption from liability regardless of whether any or sufficient steps were taken to properly secure the installation against the attack.

Examination of the French legislation implementing the Paris/Brussels Conventions which would apply to the Gravelines scenario

*Act No. 68-943 of 30 October 1968 on Third Party Liability in the Field of Nuclear Energy, as amended by Act No. 90-488 of 16 June 1990*⁹

The application of the principles of the Paris/Brussels Conventions, and the advantages and disadvantages of the same for Irish victims of a nuclear incident, are to be seen in this French legislation.

Section 1 of the legislation provides that the Act lays down measures that, under these Conventions, are left to the initiative of each State Party.

The maximum liability of the operator of a nuclear installation, as set at 600 million French francs (FRF) (and 150 million FRF in the case of an installation which has been determined by decree as presenting a lower risk), is in excess of the requirements of the Conventions. Section 5 provides for excess compensation to be paid by the state under and within the limits of the Brussels Supplementary Convention.

Section 7 requires the operator to maintain insurance or financial security and Section 8 provides that, where victims cannot recover from the operator, guarantor or insurer, compensation shall in the last instance be met up to the maximum provided in the Act by the State.

Section 10 makes provision for the establishment by decree of a non-restrictive list of bodily injuries that shall be presumed to have been caused by the incident.

Section 13 deals with a situation where it is likely “at the time of a nuclear incident” that the maximum sums available for compensation are insufficient to compensate victims. A ministerial decree is required to be published within six months of the incident in order to set out how compensation is distributed. The decree will, having regard to, *inter alia*, the order of priority set out in Section 13(a) and (b) of the Act, set out rules for calculating the compensation available to victims for bodily injury and damage to property.

Section 15 deals with limitation periods and provides for a maximum limitation period of up to 15 years¹⁰ from the date of the incident. Section 16 provides that this legislation does not derogate from the general legislation on workers’ compensation and occupational injury and sets out the right of recourse of any agency paying benefits in this respect against the nuclear operator. Section 17 provides that all actions are to be taken in the *Tribunal de Grande Instance de Paris* and Section 19

9. The text of this Act is published in the Supplement to *Nuclear Law Bulletin* No. 46.

10. The State shall honour claims submitted after the expiry of the standard ten-year limitation period for a further period of five years.

provides that the Act overrides any special rules concerning the prescription of actions against the state and local bodies.

Commentary

The above legislation makes real many of the difficulties and uncertainties that would face an Irish victim of a nuclear incident, remaining within the context of the present example at Gravelines, in seeking compensation under the Paris Convention. The usual rules of procedure and substantive law of France would seem to largely apply to the claim. In addition there is a lack of clarity in relation to the distribution of compensation in the event that the maximum sums available are insufficient.

The legislation does not answer a number of pertinent practical questions raised during the Workshop on the Indemnification of Damage in the Event of a Nuclear Accident. It is unclear how or if French law and procedure provide for:

- the establishment of an inventory of victims and of damage suffered as a result of an incident;
- the heads of damage subject to compensation according to the applicable definition of nuclear damage;
- distribution of emergency or interim payments;
- an “initial estimate” of the damage suffered in France or any other Contracting State;
- the issue of a decree under Article 13 of the French Act;
- the institution of class actions;
- the institution and processing of claims by victims resident abroad.

It would also be of interest to ascertain whether there is in existence any procedure for the provision of information by the French authorities to other NEA states in relation to the manner in which claims for compensation may be made, the places where the necessary papers may be obtained and lodged, the provision and availability of legal advice and assistance, the deadlines for submissions of claims etc.

D. Ireland’s present reliance on the Brussels Convention on jurisdiction and the enforcement of judgements and on common law

Brussels Convention and Council Regulation No. 44/2001 on Jurisdiction and the Enforcement of Judgements

As already noted, the Paris Convention only applies to claims for compensation where the incident and damage occur in states which are parties thereto. There is provision for Contracting States to extend the application of the Convention outside its jurisdiction but this has not been done in French law.

Irish victims of a Gravelines-type incident would therefore seek to rely, *inter alia*, upon the terms of the 1968 Brussels Convention on Jurisdiction and the Enforcement of Judgements in Civil and Commercial Matters (BCJEJ). This Convention provides an effective system for the enforcement of judgements delivered in one State Party to the BCJEJ (e.g. Ireland) in any other State Party to the Convention (e.g. France). It is the contention of this paper that an Irish victim of a Gravelines incident could bring a claim for compensation in an Irish court and thereafter enforce the Irish judgement resulting from that claim in a French court under the BCJEJ system. The substantive law of Ireland would apply to any such action and a French court would be obliged to enforce Irish judgements in accordance with the terms of the Convention. This paper will hereafter set out (i) the application of the BCJEJ system to the claim under consideration; (ii) the law to be applied in relation to the claim and (iii) a summary of Irish substantive law in relation to any such claim.

(i) *Brussels Convention on Jurisdiction and the Enforcement of Judgements (BCJEJ)*

As Ireland is not a Party to the Paris Convention, jurisdiction in relation to a claim for damage suffered in Ireland has to be determined by the general common law rules on the conflict of laws. Both Ireland and France are Parties to the BCJEJ and this instrument will therefore govern as it provides rules to determine the international jurisdiction of the courts of its Contracting States in its field of application. It is the view of Ireland that the field of application of the BCJEJ includes actions for compensation for transboundary nuclear damage.

It may be objected that the concept of “civil and commercial matters”, which are governed by the BCJEJ, may not include cases involving public authorities or authorities regulated by law. Most states exercise strong regulatory control in the field of nuclear energy and, furthermore, public authorities often operate nuclear installations.

Public law matters are excluded from the scope of the BCJEJ. Guidance in relation to this question has been given by the European Court of Justice (ECJ), as the ultimate arbitrator of the meaning of the BCJEJ, in three leading cases: *LTU v. Eurocontrol* (1977) 2ELR 61, *Netherlands v. Ruffer* (1980) ECR 3807 and *Sonntag v. Waidmann* (1993) ECR 1. The rationale of those cases is that the BCJEJ is excluded when there is an action between a public authority and a private person and where the public authority is acting in the exercise of its public powers. It could hardly be argued that the operator of a nuclear power plant is engaged in the exercise of a public power as the production of energy is essentially a commercial matter. To so hold could lead to the absurd conclusion that actions against the operators of private nuclear power plants would be within the Convention whereas those against state-owned operators would not.

In general, the BCJEJ establishes jurisdiction based on the defendant’s domicile when the defendant is domiciled in a Contracting State, following the traditional rule *actor sequitur forum rei*. An Irish victim of a Gravelines-type incident could however also avail himself or herself of the forum indicated by Article 5(3) of the BCJEJ. This provides that a person domiciled in one Contracting State may be sued in another Contracting State “(3) in matters relating to tort, delict or quasi-delict, in the courts for the place where the harmful event occurred”. There is little doubt that “tort, delict or quasi-delict” is sufficiently wide to cover an action for damage caused by a nuclear incident. The ECJ has given this phrase a community meaning as covering all actions which seek to establish the liability of the defendant and which are not related to a contract within the meaning of Article 5(1) of the BCJEJ.

The words “the courts for the place where the harmful event occurred”, following decisions of the ECJ in several cases including the famous *Mines de Potasse d’Alsace* case [1976] ECR 1735, have, in relation to direct victims of a tort etc., been interpreted as conferring jurisdiction on the courts

of the state where the event giving rise to the damage occurred as well as the state where the damage itself occurred, at the option of the plaintiff. The French and Irish courts would therefore, in the incident under consideration, have jurisdiction under Article 5(3) at the option of the plaintiff.

(ii) *The law to be applied to any such claim*

The ECJ confirmed in the case of *Shevill v. Presse Alliance SA* [1995] 2 AC 18 that the object of the BCJEJ was not to unify the substantive law and procedure of different Contracting States but only to determine which courts had jurisdiction and to facilitate the enforcement of judgements. Questions raised by an action for damages in tort or quasi-tort, such as “the circumstances in which the event giving rise to the harm may be considered harmful to the victim, or the evidence which the plaintiff must adduce” are to be settled “solely by the national court seised, applying the substantive law determined by its national conflict of laws rules, provided the effectiveness of the Convention is not thereby impaired”.

It is of particular interest to first note that if an Irish plaintiff were to bring an action in the French courts for damage suffered as a result of an incident in Gravelines, then it would *prima facie* appear that the French courts would apply the *lex damni*, the law of the place of the damage, to any such incident. The principle of the application of the *lex damni* is also now recognised in United Kingdom law in Section 11 of the Private International Law (Miscellaneous Provisions) Act, 1995. Section 11(1) poses as a general rule that the applicable law is that of the country where the events constituting the tort in question took place. Section 11(2) deals with the situation where parts of these events occurred in different countries and provides that the applicable law is “for an action dealing with bodily damage caused to a person or death resulting from the bodily damage, the law of the place where the person was when he suffered the damage” and “for an action dealing with property damage, the law of the place where the property was at the time of the damage”.

There are other rules applied in different legal systems to the question under discussion, e.g. Germany and Italy apply the principle of the law that is most favourable to the injured party whereas the Netherlands and Denmark apply the law of the place of the dangerous activity (*lex loci actus*).

Were the plaintiff to take an action in Ireland, it is also likely that the law applied to any such claim would be the law of Ireland, the place where the injury or loss occurred. This question has not been regulated by statute in the state but an analysis of case law would suggest Irish law would be applied to any such case – see for example *Grehan v. Medical Incorporated and Valley Pines Associates* [1986] IR 528. Of particular interest in this regard are the observations of the Supreme Court in the case of *Short v. Ireland, the Attorney General and British Nuclear Fuels* [1997] 1 ILRM 161 (see *Nuclear Law Bulletin* No. 59). This decision concerned the propriety of allowing the plaintiffs, resident in Ireland, to seek various reliefs including declarations, injunctive relief and damages for various torts alleged to have been committed by British Nuclear Fuels Limited in the operation of the Thorp reprocessing plant at Sellafield. The High and Supreme Courts both rejected the contention of British Nuclear Fuels Limited that this was not a proper case in which to allow the service of a summons out of the Jurisdiction under Order 11 of the Irish Rules of the Superior Courts.

Judge Barrington, at page 169 of the judgement, made the point that it was not the activities as such that gave the plaintiff a cause of action but the results of the activities and it was these allegedly harmful events that gave the Irish courts jurisdiction. He then referred to the future possible course of the case and made the following observations:

“Prima facie it is difficult to see how any provision of English law could make legal in Ireland injury or damage which would otherwise be tortious under Irish law. Certainly it is hard to see how any provision of UK law could deprive the Irish courts of jurisdiction which they would otherwise have. *Prima facie* the relevant law would appear to be the *lex loci delicti* rather than the law of the United Kingdom.”

(iii) *Summary of Irish Law in relation to such a claim*

It is not the purpose of this paper to carry out a detailed analysis of the Irish law of torts but rather to refer to the likely causes of action available to an Irish plaintiff in the event of loss and damage caused by a nuclear incident.

Before summarising causes of action, however, I would first like to mention the questions of damages and limitation periods.

The general purpose of the Irish law of torts is to place a plaintiff in the same position as he or she would have been prior to the commission of the wrong. This is referred to as the principle of *Restitution ad Integrum*. The only form of compensation permitted by Irish law at present is a lump sum award. There is also no specific bar on the recovery of pure economic loss suffered as a result of tortious action. There is no limitation on the total amount that may be recovered by an individual or a group of individuals who suffer loss and damage.

The provisions of the Irish Statute of Limitations would also be more advantageous to a plaintiff as compared to the provisions of the Paris Convention. The general period of limitation for an action founded on tort is six years from the date on which the cause of action accrued – Section 11 of the Statute of Limitations 1957. Where a tort is actionable per se, time begins to run from the date of the act whereas where there is, for example, continuing trespass or nuisance, a fresh cause of action arises *de die in diem*. Where a tort is actionable only on proof of damage, as with negligence for example, time does not begin to run until some damage actually occurs. In addition, the Statute of Limitations (Amendment) Act, 1991 introduced a special limitation period for actions for personal injuries. Section 3(1) provides that such an action, where it is alleged the injuries were caused by negligence, nuisance or breach of duty, must be brought within three years of the cause of action accruing or the date of knowledge of the person injured (if later).

Rylands v. Fletcher

This is probably the most powerful weapon in an Irish plaintiff's armour were he or she to sue for loss or damage caused by a nuclear incident. Under the famous House of Lords decision in *Rylands v. Fletcher* [1868] L.R. 3 H.L. 330 any person who, in the context of a non-natural use of his real property accumulates anything that may cause harm to his neighbour in case it flows out is strictly liable for all the damage that is the direct consequence of the outflow. Subsequent decisions have found that whereas the domestic use of electricity or gas will not fall within the scope of the rule, non domestic use of these substances or of explosives or other highly inflammable materials may give rise

to strict liability. It is therefore likely that the production of nuclear energy and the escape of harmful outflows as a result would be actionable under the rule.

Private Nuisance

A plaintiff may also consider bringing an action in nuisance in the event of a nuclear incident. Private nuisance is not actionable *per se* and actual damage must be shown and the damage must consist of physical injury to land, a substantial interference with the use and enjoyment of land or an interference with servitudes. It is only a person with an interest in the land, or an occupier of the land, who can maintain such an action.

Negligence

To succeed in any such claim a plaintiff would have to establish four elements:

- (i) a duty of care, that is that the nuclear operator (or the manufacturer of parts etc.) owed him or her an obligation to conform to a standard of behaviour for the protection of others against unreasonable risks;
- (ii) a failure to conform to the required standard;
- (iii) actual loss or damage to recognised interests of the plaintiff;
- (iv) a sufficiently close causal connection between the conduct and resulting injury to the plaintiff.

It is unlikely that the courts would have much difficulty in finding that a nuclear operator in France did owe a duty of care to an Irish resident. The standard of that duty will obviously be a matter of debate and whether, on the facts of the given case, the defendant operator fell below the requisite standard. Items (iii) and (iv) are really matters of proof in court.

Trespass to Land

A plaintiff in a Gravelines-type situation may also consider seeking damages for trespass to his or her land. It is a trespass for a person to place any chattel on the land of another or to cause any object or substance directly to cross the boundary of another's land. The injury caused must be direct. Although the tort is actionable *per se*, that is without proof of any injury, the plaintiff will normally have to prove appreciable loss to obtain significant damages.

Other issues under the BCJEJ

The applicant may also seek to have any interlocutory relief obtained in the state having jurisdiction over a claim enforced in any other Contracting State. In accordance with Articles 2 and 5 to 18 of the BCJEJ, a court which has jurisdiction as to the substance of a case also has jurisdiction to order any provisional or protective measures that may prove necessary. In addition, Article 24 allows a court to order provisional or protective measures even if it does not have jurisdiction as to the substance of the case.

I would again cite the case of *Short v. Ireland, the Attorney General and British Nuclear Fuels Ltd* and draw your attention to the fact that the plaintiffs therein are seeking *inter alia* injunctive relief and have been given leave to serve their proceedings out of the jurisdiction under Order 11 of the Superior Courts Rules. That case was not brought under the BCJEJ but does indicate the openness of the Irish courts to the possibility of claims being entertained in this jurisdiction for damage caused by the operation of a nuclear plant in an adjoining state.

Under the Paris Convention, liability is channelled onto the operator of the nuclear installation. There is no such limitation of potential defendants under the Irish law of torts. In the event of a Gravelines-type incident, an Irish plaintiff could seek compensation from, for example, the builder of the installation and the supplier of the power plant or material that proved to be faulty.

E. Conclusion

Although there are some attractions in the system of third party liability established by the Paris and Brussels Conventions, there is little doubt that these are outweighed for Ireland by the many disadvantages and limitations set out above. The most serious of these limitations are the clearly inadequate sum of compensation available in the event of even a moderate nuclear incident and the unduly inflexible and restrictive limitation periods imposed on a plaintiff. From an Irish point of view, these Conventions appear to put the interests of the nuclear industry before the interests of those who might be injured as a result of what is, after all, one of the most potentially dangerous activities carried out by mankind.

Given that Ireland is not, and has no intention to become, a nuclear power producer, it is difficult to see any compelling legal, social, political or economic reason to become a Party to the Paris and Brussels Convention systems as they now stand.

Ireland considers that at this present time, the interests of its citizens is, on balance, better protected by relying upon the substantive law of the state and the system of recognition and enforcement of judgements originally established by the 1968 Brussels Convention on Jurisdiction and the Enforcement of Judgements in Civil and Commercial Matters.

CONCLUSIONS OF THE WORKSHOP

by *Monsieur le Préfet (Prefect) Deschamps*

In my opening remarks, I neglected to congratulate both Mr. Reyners and Mr. Rousseau for organising this meeting. I would like to do so now. My words will have all the more weight seeing as I now speak *a posteriori* having noticed over these past three days, during which I was quite assiduous, of how we examined interesting topics and realised the extent to which we can benefit from the knowledge of other States with a civil nuclear industry. I have the impression that everybody was extremely interested in all of the presentations made, especially that of Mr. Murakami, during which a religious silence reigned in the conference room.

I think that we cannot speak of nuclear without keeping in mind the specificity of this sector. It is a sector which, more than any other, triggers lively reaction from the media and public opinion. This is also evident from the examples provided by Mr. Murakami. Let us not forget that the accident which he described created a considerable stir on a world-wide scale immediately, although it was not by any means comparable to the major catastrophes which captivate international public opinion. The Tokai-mura accident was instantly on the headlines of all newspapers even though, at that very moment, besides the three workers who were, tragically, seriously irradiated, there was no reason to consider that the other workers and, *a fortiori*, members of the public would be affected. Nevertheless, Tokai-mura was considered by the media and by public opinion to be a major industrial accident.

I had the opportunity to say that this sensitivity, this suspicion and distrust of the public, on the reasons for which much could be said, was even more surprising as this sector boasts one of the lowest accident rates: I provided figures in respect of France – 1 000 reactor years without a fatal accident resulting from irradiation. In respect of all countries with a civil nuclear power industry, i.e. for 440 or 450 power plants, during over 10 000 reactor years there has been only one, albeit gravely serious, accident in Chernobyl and an accident without human consequences in Three Mile Island. This high degree of safety should not make us forget however that, like all things human, it is not absolute, it is in perpetual evolution and there will always subsist a certain risk, even though it may be minor. Everything leads us to believe, for reasons of which you are perfectly aware, that a Chernobyl-type accident cannot happen again. However, even if the risk is small, the possibility of an accident leading to releases within 24 to 48 hours, according to the type of accident and the manner in which the unit is operated – take for example the risk of steam generator tube rupture – is not zero and therefore we must be ready to do the necessary to repair the damage to property and to assist members of the public affected by such releases.

I had the impression that one or two comments made by members of the French delegation, involuntarily led to the impression that in this country, not an “all nuclear country” but one in which 75% of electricity is of nuclear origin, which hosts EDF, the Atomic Energy Commission, Cogema etc., is ill-prepared as far as compensation measures are concerned. I would certainly not like for you to leave the Workshop with this impression. There was an exercise five years ago, called the Becquerel exercise, which was the first one of its kind that focused on post-accidental issues. Working groups were formed on the different aspects of post-accidental management: decontamination of land,

the food chain, epidemiology, measurements and compensation. Meetings took place on compensation and I received notes from the directors concerned in the two Ministries concerned, i.e. the Ministry for the Interior and the Finance Ministry which examined all elements of this question. This means therefore that a substantial part of the thought process has already taken place, and that the different intervention measures – interventions by the emergency services, where, how when? – will be tested progressively during future exercises. In this way, we can envisage that a general framework could now be implemented within an acceptable time-frame.

This summarises what I wanted to say to you concerning our preparation for a potential compensation procedure. I would add that the most important thing in my view is that the emergency services carry out their operations to provide assistance in a successful manner. It is upon such elements that public opinion will found its judgement on the insurer, the public authorities and the operator. I think that public opinion, in this type of circumstances, will be all but patient. Our reflections should allow us now to make choices which deliver the most satisfactory solutions.

These three days of work, through the comparison of our respective experiences, have allowed us to refine our thoughts and to specify our objectives, and I believe that this Workshop has definitely brought us a step forward.

CONCLUSIONS DE L'ATELIER

par Monsieur le Préfet Deschamps

Lors de mes premiers propos, je me suis aperçu que j'avais oublié de vous féliciter et de vous remercier pour l'organisation de cette réunion : vous, Monsieur Reyners, Monsieur Rousseau. Je vais le faire maintenant. Mes propos auront d'autant plus de poids que, en quelque sorte, je parle *a posteriori*, en ayant constaté pendant ces trois journées où j'étais relativement assidu, combien nous abordions des sujets intéressants et combien nous avons intérêt à enrichir nos pratiques par la connaissance de celles des autres États qui ont un nucléaire civil. Je pars avec la conviction que tout le monde a été très intéressé par les exposés successifs mais surtout par celui de Monsieur Murakami, écouté dans un silence religieux.

Je crois qu'on ne peut pas parler du nucléaire sans avoir très présent à l'esprit la spécificité de ce secteur. C'est un secteur à l'égard duquel les réactions des médias et de l'opinion publique sont infiniment plus vives que s'agissant de tout autre secteur. Et cela se voyait aussi à travers les exemples donnés par Monsieur Murakami. N'oublions pas que l'accident dont il nous a parlé a eu le retentissement mondial que vous savez, immédiatement, alors qu'il n'était en aucun cas comparable aux grandes catastrophes qui passionnent l'opinion publique internationale. L'accident de Tokai-mura a fait immédiatement l'objet de l'attention de tous les journaux ; or, à ce moment là, si d'évidence hélas trois opérateurs étaient gravement irradiés, on pouvait considérer que les autres agents et, *a fortiori*, les populations ne pouvaient guère être atteints. Néanmoins, Tokai-mura a été considéré par les médias et donc les opinions publiques comme un accident industriel majeur.

J'ai eu l'occasion de dire que cette sensibilité, cette méfiance, cette défiance du public sur les raisons desquelles il y aurait beaucoup à dire, était d'autant plus étonnante qu'il n'est pas de secteur industriel où le dommage soit aussi faible : j'avais donné un chiffre pour la France : 1 000 années réacteurs sans accident mortel dû à l'irradiation et pour l'ensemble des pays ayant un nucléaire civil, c'est-à-dire pour les 440 ou 450 centrales, on en est à 10 000 années réacteurs sans autre accident que celui, très grave il est vrai, de Tchernobyl et que l'accident sans conséquences humaines de Three Mile Island. Cette sécurité ne doit pas nous faire perdre de vue que, comme toute chose humaine, elle n'a rien d'absolu, qu'elle est une œuvre de tous les instants et qu'il y aura toujours un risque si petit soit-il qui subsistera. Tout laisse à penser, pour des raisons que vous connaissez parfaitement, que l'accident du type de Tchernobyl n'est pas, assurément, susceptible de se renouveler. Mais, même s'il est très faible, le risque d'un accident au terme duquel il y aurait des rejets dans un délai de 24 à 48 heures, suivant le type de l'accident et la façon dont la tranche serait pilotée, le risque par exemple de la rupture d'un tube de générateur de vapeur, n'est pas nul et il faut par conséquent que nous soyons prêts à faire le nécessaire pour réparer les dommages des biens, pour nous occuper des populations qui seraient assurément atteintes par ces rejets.

J'ai eu l'impression qu'une ou deux interventions françaises, involontairement, laissaient à penser que dans ce pays qui n'est pas celui du tout nucléaire mais, enfin, qui a quand même 75 % de son électricité d'origine nucléaire, qui est celui non seulement d'EDF mais du Commissariat à l'énergie atomique, de la Cogema, etc., nous étions, s'agissant de l'indemnisation, dans un état

d'impréparation. Je ne voudrais surtout pas que vous partiez avec ce sentiment. Il y a eu un exercice il y a cinq ans, qui était l'exercice Becquerel, qui fut le premier exercice consacré au post-accidentel ; des groupes de travail ont été constitués sur les différents volets du post-accidentel : la décontamination des sols, la chaîne alimentaire, l'épidémiologie, les mesures et l'indemnisation. Des réunions ont eu lieu et sur l'indemnisation, pour m'en tenir à elle, j'ai obtenu des notes des directeurs concernés des deux Ministères intéressés, c'est à dire l'Intérieur et les Finances qui abordent tous les aspects du dossier. Ce qui signifie qu'une bonne part du travail de réflexion a déjà été menée à bien, que les différentes façons d'intervenir – les premiers secours, où, quand, comment ? – vont être testées progressivement lors de certains exercices. Dans ces conditions, on peut envisager que les arbitrages arrêtant un dispositif général peuvent désormais intervenir dans des délais raisonnables.

Voilà ce que je voulais vous dire, en ce qui concerne notre préparation à une éventuelle indemnisation. J'ajouterai que ce qui me paraît le plus important est que nous réussissions la distribution des premiers secours. C'est là-dessus, je crois que l'opinion publique nous jugera tous : l'assureur, les pouvoirs publics, l'exploitant. Je pense que l'opinion publique, dans ce genre de circonstances, sera tout, sauf patiente. Nos réflexions doivent permettre maintenant de faire les choix qui apportent les solutions les plus satisfaisantes.

Ces trois jours de travaux, par la confrontation des expériences qui ont été les nôtres, nous ont permis d'affiner nos réflexions, de préciser nos objectifs, et je pense que cette réunion a été tout à fait de nature à faire avancer les choses.

Merci.

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I. Alert Phase

1. Decision making

a) Which are the competent bodies to decide which types of preventive measures in relation to the public must be taken in the event of a grave and imminent danger of a nuclear accident in your country, in particular in respect of decisions on sheltering indoors, iodine administration, evacuation?

ANNEX I

**INTEGRAL REPLIES TO QUESTIONNAIRE
RÉPONSES INTÉGRALES AU QUESTIONNAIRE**

I. ALERT PHASE – Grave and imminent danger of a nuclear accident

I. PHASE D'ALERTE – Menace grave et imminente d'un accident nucléaire

1. Decision making

1. Prise de décision

a) Which are the competent bodies to decide which types of preventive measures in relation to the public must be taken in the event of a grave and imminent danger of a nuclear accident in your country, in particular in respect of decisions :

a) Quels sont les organismes compétents pour décider quels types de mesures préventives concernant la population doivent être prises en cas de menace grave et imminente d'un accident nucléaire dans votre pays, notamment s'agissant des décisions :

- **on sheltering indoors, iodine administration, evacuation?**
- *de mise à l'abri, de prise d'iode, d'évacuation ?*

Austria

Sheltering indoors: Federal Ministry for Agriculture and Forestry, the Environment and Water Management, Department for Radiation Protection (V.7)

Iodine administration: Federal Ministry for Social Security and Generations (VIII/A/22) in cooperation with Federal Ministry for Agriculture and Forestry, the Environment And Water Management, Department for Radiation Protection (V.7)

Evacuation: Federal Chancellery, State Crisis Management (I/A/9) in co-operation with the Governors of the "Länder" (provinces)

I. Alert Phase

1. Decision making

a) Which are the competent bodies to decide which types of preventive measures in relation to the public must be taken in the event of a grave and imminent danger of a nuclear accident in your country, in particular in respect of decisions on sheltering indoors, iodine administration, evacuation?

Belgium

Les décisions sont prises par CORECO (comité interministériel), présidé par le Ministre de l'Intérieur (s'il échut, du Premier Ministre). S'il s'agit uniquement de dommages environnementaux, le Ministre de l'Environnement préside.

Bulgaria

The Permanent Commission on Public Protection in Case of Calamities, Disasters and Catastrophes (Permanent Commission) to the Council of Ministers is a specialised national authority presided by a minister. The Permanent Commission decides which type of preventive measures in relation to the public must be taken. The obligatory preventive measures are:

- information of the population and measures for protection without shelter;
- sheltering and protection of the respiratory organs;
- iodine treatment;
- temporary evacuation;
- temporary relocation;
- interruption of the temporary relocation;
- permanent relocation.

The type of preventive measure depends on the prevented effective dose and on the period in which there would be a probability to receive the presumed effective dose (see below).

The Ministry of Health in accordance with the Committee on the use of atomic energy for peaceful purposes (CUAEP) propose the adequate measure. The decision has to be approved by the Permanent commission. The final decision is taken by the Council of Ministers. The organisation in order of the application of the measures taken lies with the State Agency Civil Protection.

I. Alert Phase

1. Decision making

a) Which are the competent bodies to decide which types of preventive measures in relation to the public must be taken in the event of a grave and imminent danger of a nuclear accident in your country, in particular in respect of decisions on sheltering indoors, iodine administration, evacuation?

Dose criteria for the decision making for protection of the public

No.	Prevented effective dose		Period of time*	Obligatory protective measures
1.	bellow 5 mSv		1 year	Information of the population and measures for protection without shelter
2.	10 mSv		48 hours	Sheltering and protection of the respiratory organs
3.	50 mSv		7 days	Temporary evacuation
4a.	Age group	Absorbed dose by thyroid gland	48 hours	Iodine treatment
	Bellow 18 years	10 mGy		
	Pregnant and brestfeeding women			
4b.	From 18 years up to 40 years	100 mGy		
5.	30 mSv		1 month	Temporary relocation
6.	10 mSv		1 month	Interruption of the temporary relocation
7.	1 000 mSv		For the life time**	Permanent relocation

Remarks: * Time period in which it is possible to get the projected effective dose

** In average, 50 years for the adults and 70 years for the children

Canada

The province.

The Federal Nuclear Emergency Plan (FNEP) (Section 2.1.1) states that for each nuclear generating station in Canada, in addition to the on-site emergency plan which is under the responsibility of the owner/operator, an off-site emergency plan involving both municipal and provincial levels must be in place. The latter should detail how to implement urgent protective actions (e.g. limiting access to the affected zone, sheltering, thyroid blocking and evacuation) for areas near a licensed nuclear facility, and ingestion control measures (e.g. quarantine of farm animals, banning sale of locally produced food and closing local drinking water supplies) for a somewhat larger area.

For example, the Province of Ontario Nuclear Emergency Plan (Provincial Master Plan) stipulates that whenever a nuclear emergency occurs, control of operations to deal with the emergency shall vest in the province. This will include decisions on the taking of appropriate protective action by the affected public (Section 6.1.1, p. 56, Province of Ontario Nuclear Emergency Plan, January 1997). In Ontario, the Provincial Operations Centre (OpsCentre) will direct a municipality or municipalities to implement protective measures. (Table 5.1, p. 53, Province of Ontario Nuclear Emergency Plan).

I. Alert Phase

1. Decision making

a) Which are the competent bodies to decide which types of preventive measures in relation to the public must be taken in the event of a grave and imminent danger of a nuclear accident in your country, in particular in respect of decisions on sheltering indoors, iodine administration, evacuation?

Similar plans are in place in New Brunswick and Quebec, the other Canadian provinces with nuclear power reactors. In New Brunswick, the New Brunswick Emergency Measures Organization has the Off-site Emergency Plan for Point Lepreau Generating Station (1989). In Quebec, le *Ministère de la Sécurité publique du Québec*, has the *Plan des mesures d'urgence nucléaire externe à la centrale nucléaire Gentilly 2*.

As mentioned in the Overview to this questionnaire *supra*, a nuclear operator must have adequate emergency measures in place before obtaining a licence to operate from the CNSC. Specifically, the CNSC requires that the operator must be able to prevent or mitigate the effects of accidental releases of nuclear substances and hazardous substances on the environment, the health and safety of persons and the maintenance of security.¹

Czech Republic

Head of local authority of affected area (Act No. 239/2000 Coll, on Crisis Management; Act No. 240/2000, on Integrated Rescue System).

Denmark

In Denmark there is one competent body. The Danish Emergency Management Agency (DEMA) makes these kinds of decisions. In such a situation a main command post situated in DEMA will be established. Liaison officers and – personnel representing competent bodies from: police, armed forces, National Institute of Radiation Hygiene (SIS), Risoe National Laboratory and relevant victuals authorities are part of the main command post. Decisions can be made in reference with a minister group pointed out by the government. Consequently, better decisions can be made for instance regarding evacuation.

Finland

Depending on the extent of the hazard situation, decision concerning safety operations are made by the rescue authorities on the municipal, provincial or governmental level.

According to the guide issued by Ministry of the Interior, all decisions regarding protective measures, should base on recommendations given by the Radiation and Nuclear Safety Authority (STUK).

France

Le préfet du département concerné.

1. Nuclear Safety and Control Act, Class I Nuclear Facilities Regulations, P.C. 2000-784 31 May, 2000, Section 6(k).

I. Alert Phase

1. Decision making

a) Which are the competent bodies to decide which types of preventive measures in relation to the public must be taken in the event of a grave and imminent danger of a nuclear accident in your country, in particular in respect of decisions on sheltering indoors, iodine administration, evacuation?

Germany

The emergency response authorities at länder level are in charge of such decisions. In the event of cross-border incidents or accidents abroad, the federal level (the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety) can issue a recommendation for iodine prophylaxis to be applied as a precautionary radiation protection measure.

Ireland

The national competent authority, the Radiological Protection Institute of Ireland (RPII) recommends the need for certain countermeasures to the Emergency Response Coordination Committee (ERCC) – a committee of experts from key Government departments and national agencies. This Committee considers the practicalities of these recommendations. The Committee's observations, with the RPII recommendations, are presented to a committee of government ministers that in turn decides on whether to implement the countermeasure(s) or not.

Japan

Nuclear Disaster Countermeasures Headquarter (the body set up by the Prime Minister in case of nuclear emergency, which consists of the Prime Minister, the competent Minister and members from other related government organizations).

Korea

Local government.

Lithuania

All preventive measures before or the actual nuclear accident should be decided by Governmental Emergency Management Commission (hereinafter – EMC). EMC consists from vice-ministers of the following ministries: Economy, Environment, Health, Interior, Agriculture, Finance, Transport, Education and Science, Justice. As well as heads of state institutions: State Nuclear Power Safety Inspectorate (VATESI), Fire protection Department, Custom Department, SC Lithuanian Radio and Television.

These officials will make all decisions, related with any emergency situation.

Remark: the situation is different with foodstuff. If an accident happens at the Ignalina NPP, the temporary levels of possible pollution with radioactive nuclides shall be applied to food products by the resolution of the Chief Physician-Hygienist of the Republic of Lithuania. After making the dosimetric analysis of food products, the specialists of district hygiene centres shall allow or prohibit the use of examined food in compliance with applied temporary levels.

I. Alert Phase

1. Decision making

a) Which are the competent bodies to decide which types of preventive measures in relation to the public must be taken in the event of a grave and imminent danger of a nuclear accident in your country, in particular in respect of decisions on sheltering indoors, iodine administration, evacuation?

Luxembourg

En situation de crise, il y a formation d'une cellule de décision (Ministères de l'Intérieur et de la Santé). Les décisions sont soumises à l'approbation du Gouvernement.

Poland

Minister of Internal Affairs.

Romania

The coordination of the intervention preparedness in case of nuclear accident shall be ensured by the Central Commission for Nuclear Accident and Dropping of Cosmic Objects under the co-ordination of the Ministry of National Defense.

Spain

Les Services de protection civile sur avis du Conseil de la sécurité nucléaire (CSN).

Sweden

In case of a nuclear accident, or a situation where there is a grave and imminent threat of a nuclear accident, a vast number of authorities will be involved (e.g. the County Administrations, the Swedish Rescue Services Agency, the Swedish Nuclear Power Inspectorate, the Swedish Radiation Protection Institute, the National Board of Health and Welfare, the National Police Board and the Swedish Meteorological and Hydrological Institute).

The responsibility for contingency planning (preparedness planning) at regional level lies with the County Administrations. In the counties where nuclear installations are located, the contingency planning can be described in the following few broad strokes.

Within an area of 12-15 km from the nuclear installation, the inner contingency zone, there is a particular preparedness in order to alert the public of an incident. Iodine tablets have been distributed to the households in the area together with instructions on what should be done in case of an alarm.

The County Administrations are authorised to request the local rescue departments, the Police, the Coast Guard etc. to conduct the rescue operations that may be necessary in case of an incident. Thus, the County Administrations are responsible for alerting and informing the public in the event of a nuclear accident and the Administrations decide what measures should be taken to protect the public.

I. Alert Phase

1. Decision making

a) Which are the competent bodies to decide which types of preventive measures in relation to the public must be taken in the event of a grave and imminent danger of a nuclear accident in your country, in particular in respect of decisions on sheltering indoors, iodine administration, evacuation?

At national level, the Swedish Radiation Protection Institute has plays an important role. The Institute co-ordinates the national radiation monitoring resources and co-ordinates the advice from the national authorities on radiation protection and decontamination for the County Administrations. The Swedish Radiation Protection Institute has to its disposal 37 radiation monitoring stations throughout the country. These stations continuously measure the radiation level and alert the institute should the level increase. These stations, of course, react to radiation irrespective of where the source is located, that is they react to emissions in Sweden as well as those that stems from a foreign source. If a radiation related incident occurs, the Institute launches its emergency organisation which is comprised of radiation protection experts, medical experts, information experts, etc.

As for the effect of radiation on harvesting, foodstuff and so on, the Swedish Board of Agriculture and the National Food Administration are the competent authorities in case of a nuclear incident.

The Swedish Nuclear Power Inspectorate provides the relevant County Administration and the Swedish Radiation Protection Institute with advice and information regarding the technical nuisance.

Switzerland

En cas d'extrême urgence, la Centrale nationale d'alarme (CENAL) peut ordonner les mesures imposées par les circonstances. Dans les autres cas, il appartient au Conseil fédéral (CF), qui est le gouvernement central, d'ordonner les mesures préventives. Le CF est assisté par un comité *ad hoc* : le Comité directeur radioactivité (CODRA) qui a pour tâche de rassembler et d'étudier toutes les données en rapport avec la situation et de proposer au CF les mesures préventives. Le CODRA a une composition très large. Il est à même de formuler des propositions au CF quelle que soit la situation. Sa composition et ses tâches sont réglées par l'Ordonnance du 26 juin 1991 relative à l'organisation d'intervention en cas d'augmentation de la radioactivité (OROIR ; Recueil du droit suisse n° 732.32)².

United Kingdom

A strategic co-ordinating group (SCG) chaired by the local police would meet at the Local Emergency Centre (LEC) to take this type of decision. This group would include the local Director of Public Health (or his representative), the Government Technical Adviser, and all other relevant local and national agencies with an interest. Arrangements for the emergency countermeasures of sheltering indoors, iodine administration and evacuation are set out in emergency plans which are prepared for each site. Decisions on implementation would be taken by the SCG in the light of ongoing conditions and local circumstances.

2. Le texte de cette Ordonnance est reproduit à l'appendice 2 du présent questionnaire.

I. Alert Phase

1. Decision making

a) Which are the competent bodies to decide which types of preventive measures in relation to the public must be taken in the event of a grave and imminent danger of a nuclear accident in your country, in particular in respect of decisions on prohibition of harvesting and selling foodstuffs or other products, or on limitation of economic activities?

- **on prohibition of harvesting and selling foodstuffs or other products, or on limitation of economic activities?**
- *d'interdiction de récolte, de vente de produits alimentaires ou autres, de restriction des activités économiques ?*

Austria

Prohibition of harvesting: Federal Ministry for Agriculture and Forestry, the Environment and Water Management in co-operation with the Governors.

Prohibition of selling foodstuffs: Federal Ministry for Social Security and Generations.

Prohibition of selling other products: Federal Ministry for Agriculture and Forestry, the Environment and Water Management In co-operation with the Governors.

Belgium, Czech Republic, Lithuania, Luxembourg, Sweden, Switzerland

See *supra*.

Bulgaria

The Ministry of Health, The Ministry of Agriculture and Forestry and the CUAPEPP accord the proposition for the adequate measure. The decision has to be approved by the Permanent commission. The final decision is taken by the Council of Ministers. The organisation in order of the application of the measures taken lies with the State Agency for Civil Protection.

Canada

Such decisions, including criteria for recommending the action, are normally within provincial jurisdiction. In the event of a provincial request for federal assistance, Agriculture and Agri-Food Canada would evaluate the hazard for impacts on agricultural lands, facilities, commodities, plants and livestock.

Denmark

The National Institute of Radiation Hygiene (SIS) is the competent body in questions about agricultural products. Decisions on making restrictions in this area will be made in close co-operation with the DEMA.

Decisions on limitations of economic activities lie with the government.

I. Alert Phase

1. Decision making

a) Which are the competent bodies to decide which types of preventive measures in relation to the public must be taken in the event of a grave and imminent danger of a nuclear accident in your country, in particular in respect of decisions on prohibition of harvesting and selling foodstuffs or other products, or on limitation of economic activities?

Finland

Other measures required by the situations shall be decided upon by the relevant administrative sectors. According to the guide issued by Ministry of the Interior, all decisions regarding protective measures, should base on STUK's recommendations.

The rescue authority will be the general supervisor of the situation. It co-ordinates the co-operation between the various authorities. At each supervisory level command centres will be used. Representatives of the most important co-operative sectors will also be operating at these centres.

The responsibilities:

The Ministry of the Interior:

- protective measures in severe hazards situations affecting widespread areas
- establishing a command centre with governmental authorities for co-ordinating activities
- Radiation and Nuclear Safety Authority (STUK)
- overview of the accident and radiation situation
- assessment of the harmful effects regarding safety of the population and the environment
- recommendations for protective measures
- information about the situation to domestic and foreign counterparts and to media
- advise e.g. the industry, trade, transport and customs authorities regarding the reduction of harmful effects
- international assistance relating to radiation expertise

The Ministry of Agriculture and Forestry:

- orders and instructions concerning e.g. milk and meat and crops, forestry and peat production

The National Food Administration subject to the Ministry of Agriculture and Forestry (the Ministry of Trade and Industry and the Ministry of Social Affairs and Health are taking part in agreeing the annual work plan of the Administration):

- the supervision of foodstuffs in the processing and delivery and supervision of retail foods

I. Alert Phase

1. Decision making

a) Which are the competent bodies to decide which types of preventive measures in relation to the public must be taken in the event of a grave and imminent danger of a nuclear accident in your country, in particular in respect of decisions on prohibition of harvesting and selling foodstuffs or other products, or on limitation of economic activities?

The Ministry of Trade and Industry:

- energy management, storage of reserve supplies and foreign trade

The Ministry of Social Affairs and Health:

- general safety of public health and social security also in radiation hazards
- orders concerning the monitoring and quality of drinking water

The Defence Forces:

- participation in rescue activities by supplying the necessary equipment, personnel and special expert services

The Ministry of Transport and Communication:

- matters concerning traffic, transport and communication links

The Ministry of Foreign Affairs:

- intensified communication to Finnish embassies abroad and to embassies of foreign countries in Finland

The State Provincial Offices with other regional administrative authorities:

- monitoring the accident situation, supervise rescue activities and direct the activities of their subordinate authorities

The municipalities of the danger area:

- implementation the decision and instruction pertaining the rescue activities and other areas of administration
- issue of information to the residents of their own area
- directing the activities and co-ordination in their own area

France

En phase d'alerte, le préfet du département concerné, sur avis de l'OPRI ; ensuite le Premier Ministre, en concertation avec les différents départements ministériels concernés. Une cellule interministérielle, mise en place au niveau national, assure la gestion opérationnelle de l'intervention et de secours (Directive 2202).

I. Alert Phase

1. Decision making

a) Which are the competent bodies to decide which types of preventive measures in relation to the public must be taken in the event of a grave and imminent danger of a nuclear accident in your country, in particular in respect of decisions on prohibition of harvesting and selling foodstuffs or other products, or on limitation of economic activities?

Germany

The authorities in charge are the Federal Ministry of Health (BMG); the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), the Federal Ministry of Consumer Protection, Food and Agriculture (BMVEL) – the relevant document is Article 7 of the Precautionary Radiation Protection Act (StrVG) – or the EU [in line with Regulation (Euratom) No. 3954/87, among others]. In Germany, harvesting is not prohibited, there is merely a recommendation to refrain from harvesting. The same applies to a limitation of economic activities. Delegated legislation is stipulated in Article 7(1) of the StrVG. In line with this provision, the BMG, in agreement with the BMU the BMVEL and the Federal Ministry of Economics and Technology (BMWi), is entitled to prohibit or to restrict foodstuffs in the wider sense to be put on the market or to be shipped. So far, the BMG has never resorted to its delegated legislation authority.

Japan

Nuclear Disaster Countermeasures Headquarter (as explained above).

Korea

Local government.

Poland

Minister of Internal Affairs and Minister competent in Health Matters.

Spain

Le Gouvernement sur proposition du Ministère de l'Économie avec l'avis du Conseil de la sécurité nucléaire.

United Kingdom

The Food Standards Agency (FSA) would take these countermeasures decisions, working in close liaison with the Department for Environment, Food & Rural Affairs (DEFRA) and other relevant agencies. They too would be represented at the strategic co-ordinating group (SCG), which would co-ordinate their activities along with those of all other responsible organisations. FSA's advice is based on internationally agreed criteria.

I. Alert Phase

1. Decision making

b) How would these preventive measures be co-ordinated if necessary with the neighbouring countries affected by the same event?

b) How would these preventive measures be co-ordinated if necessary with the neighbouring countries affected by the same event?³

b) Comment s'organise, s'il y a lieu, la coordination de ces mesures préventives avec les pays voisins affectés par le même événement⁴ ?

Finland

Radiation and Nuclear Safety Authority (STUK) sends without prior request information about the situation and countermeasures to the other countries (countries with the bilateral agreements, IAEA, EU and WHO). Written notifications are sent by the fax. E-mail and phone contacts are used, also. STUK has nominated contact persons for the IAEA, EU and WHO.

EU regulations concerning radioactivity concentrations on food and feeding stuff apply in Finland. The Nordic countries (Sweden, Norway, Denmark, Iceland, Finland) has had a long co-operation in the field of harmonisation countermeasures. The Nordic countries have issued joint intervention policy document "Nordic Intervention Criteria for Nuclear or Radiological Emergencies – Recommendations" including criteria for preventive sheltering, iodine prophylaxis and precautionary evacuation. The Nordic countries also inform each other about decisions on so called light countermeasures (such as recommendations concerning travelling, transport and trade).

France

Facteurs communs pour ces deux sous-questions :

- Au niveau national, il existe des accords bilatéraux avec les principaux pays frontaliers répertoriés dans le vade-mecum (5.V) : ils prévoient échange d'information et assistance en cas d'urgence radiologique avec l'Allemagne, la Suisse, la Belgique, le Royaume-Uni et le Luxembourg.

Dans ce cadre, des points de contact sont définis dans chaque pays, en éveil 24 heures sur 24, permettant d'échanger sur la nature de l'accident et les mesures prises.

En application des accords internationaux de notification rapide en cas de situation d'urgence radiologique, la circulaire interministérielle SGSN n° 9100 prévoit l'information simultanée des pays voisins pouvant être physiquement touchés et des organismes internationaux.

3. The consideration of preventive measures is likely to raise new questions, for instance on the legal consequences of the adoption of measures which are manifestly inappropriate or contradictory by the accident country and the neighbouring countries, and the possibility of being liable for such measures.

4. L'examen des mesures préventives est susceptible d'amener d'autres questions, par exemple sur les conséquences juridiques de l'adoption de mesures manifestement inappropriées ou contradictoires par le pays de l'accident et les pays voisins et l'existence d'une éventuelle responsabilité dans un tel cas.

I. Alert Phase

1. Decision making

b) How would these preventive measures be co-ordinated if necessary with the neighbouring countries affected by the same event?

De plus, la Directive interministérielle SGCN n° 2202, à partir d'un certain niveau de gravité, prévoit la mise en place auprès du Ministère de l'Intérieur d'un centre opérationnel interministériel de gestion de crise (COGIC) qui fait office de point de contact.

- Au niveau local, au titre de la coopération décentralisée, ont été mis en place des accords entre préfectures françaises et autorités correspondantes de certains pays limitrophes (Belgique, Allemagne...).

Germany

Measures are only partly coordinated on the basis of bilateral agreements. Apart from that, the neighboring state will only be informed about domestic measures. See the list of bilateral agreements in question a), sub-title 2, title I.

Japan

Basically, it seems unnecessary to co-ordinate preventive measures with the neighbouring countries. Since Japan is far from neighbouring countries, it is enough to take preventive measures independently. But if the situation requires, co-ordination will be done through diplomatic channels.

Spain

L'Espagne est Partie Contractante à la Convention sur la notification rapide d'un accident nucléaire de 1986, de même que ses pays voisins. Bien que cette Convention se réfère aux accidents nucléaires, du point de vue technique le cas étudié peut être considéré comme un incident nucléaire. Il faut également tenir en compte que la Directive du Conseil 89/618/Euratom, du 27 novembre 1989, établit que l'information à la population nationale devra être aussi communiquée à la Commission européenne et aux États membres affectés ou susceptibles d'être affectés.

- **If your country were a victim state of the accident simulated in Gravelines?**
- *À supposer que votre pays soit un pays victime de l'accident simulé à Gravelines ?*

Austria

Depending of the seriousness of the accident:

The Federal Ministry for Agriculture and Forestry, the Environment and Water Management, Department for radiological protection (V.7).

I. Alert Phase

1. Decision making

b) How would these preventive measures be co-ordinated if necessary with the neighbouring countries affected by the same event if your country were a victim state of the accident simulated in Gravelines?

or

The Federal Chancellery, State Crisis Management (I/A/9) in cooperation with the Ministry of the Interior and possibly other responsible authority, in particular the contact points established in accordance with various bilateral treaties on nuclear information and assistance.

Belgium

Un échange d'informations de nature technique et relatif e.g. au danger de rayonnement est organisé avec l'*Emergency Director* du pays voisin. Des échanges d'information au niveau local sont organisés par accords préalables.

Bulgaria

The preventive measures are co-ordinated by the CUAEPP as a national contact point in compliance with the Convention on the operative notification in the event of nuclear accident and various bilateral agreements.

The Ministry of Health communicates with the World Health Organisation.

The State Agency for Civil Protection communicates with similar authorities in the neighbouring countries.

The Ministry of Foreign Affairs notifies the diplomatic missions of the neighbouring countries in Bulgaria and the Bulgarian diplomatic missions in the other countries.

Canada

Canada is not a neighbouring country, so any co-ordination of preventive measures relating to the Gravelines accident would be highly unlikely. In the event that Canada was a victim state, it would be the primary responsibility of provinces for protecting their civilian populations, property and the environment within their borders [FNEP 5.3].

Federal operations will involve primarily environmental monitoring, control of imported food and material and implementation of measures for Canadians abroad or returning to Canada from the affected region. Federal operations will be coordinated by the FNEP Coordination and Operations Group.

The Coordination and Operations Group will coordinate the distribution of all pertinent information to appropriate federal departments and agencies headquarters, to the provincial authorities and to relevant Canadian missions [FNEP 5.5.2].

I. Alert Phase

1. Decision making

b) How would these preventive measures be co-ordinated if necessary with the neighbouring countries affected by the same event if your country were a victim state of the accident simulated in Gravelines?

Czech Republic

According to the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the case of a Nuclear Accident or Radiological Emergency.

Denmark

Via bilateral agreements on exchange of information and early warning with Sweden, Finland, Germany, Russia, Lithuania, Poland, Great Britain and North Ireland, Denmark seeks to obtain accordance with neighbouring countries level of information and preventive measures.

France

Les éléments définis ci-dessus, selon le lieu de l'accident, seront mis en œuvre.

Ireland

As a first step the Radiological Protection Institute of Ireland would liaise with the competent authorities in the neighbouring country (e.g., France, United Kingdom including Northern Ireland) in regard to proposed preventive actions along our shared borders. The implementation of these countermeasures would be primarily conducted between the relevant government departments.

Korea

Through bi-international co-operation.

Lithuania

Depending on the seriousness of the accident: Ministry of Environment or Governmental Emergency Management Commission.

Luxembourg

Les pays voisins sont consultés. Il n'existe cependant pas d'accord formel d'harmonisation des mesures de prévention et de protection.

Spain

L'Organisme, désigné par la France pour mettre en œuvre les principes de la législation précitée, aura alerté le Conseil de la sécurité nucléaire et celui-ci, vu la magnitude de la menace et l'évaluation des possibles effets sur la zone prévisiblement affectée, proposera les mesures à adopter.

I. Alert Phase

1. Decision making

b) How would these preventive measures be co-ordinated if necessary with the neighbouring countries affected by the same event if your country were a victim state of the accident simulated in Gravelines?

Switzerland

La Suisse a conclu avec tous ses voisins des conventions bilatérales réglant les échanges d'informations en cas d'accident pouvant avoir des conséquences radiologiques. Tous ces textes sont publiés au Recueil du droit suisse sous le n° 0.732.

United Kingdom

DEFRA would be the lead Department co-ordinating the United Kingdom response to any overseas nuclear accident. It would set up its Technical Co-ordination Centre to co-ordinate the United Kingdom response. The Centre would bring together all relevant organisations with an interest in the decision making process.

- **If your country were the accident country?**
- *À supposer que votre pays soit le pays de l'accident ?*

Austria

See *supra*, but basically irrelevant.

Belgium, Lithuania, Switzerland

See *supra*.

Bulgaria

The operator must inform the competent public authorities no later than 15 minutes from the initial time of the accident. The competent public authorities proceed by the same way as above. The CUAEPP sends a prognosis on the development of the accident and can recommend preventive measures.

Canada

If Canada were the accident country, and the accident were to affect the US, preventive measures would be co-ordinated through the Canada-United States Joint Radiological Emergency Response Plan of July 27, 1996. Response operations will be conducted by each country to the extent required by the circumstances of the event, and in accordance with the applicable provincial, state, and federal emergency plans [see Section 503.4].

I. Alert Phase

1. Decision making

b) How would these preventive measures be co-ordinated if necessary with the neighbouring countries affected by the same event if your country were the accident country?

If an accident in Canada were to affect a country other than the US, FNEP 5.2 states that the international liaison and assistance arrangements that are described in IAEA Conventions⁵ would be followed. Notification, subsequent information and data exchange will follow procedures described in the IAEA Convention on Early Notification of a Nuclear Accident. Assistance from or to a foreign government or an international organization will be requested, provided, directed, controlled and terminated in accordance with the IAEA Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency. In the National Support Centre, the Coordination and Operations Group will be responsible for ensuring that links with international organizations are established and maintained through Foreign Affairs and International Trade and other appropriate federal departments and agencies.

Czech Republic

According to the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency.

Denmark

An accident in Denmark (Risoe) will result in normal notification. Denmark is a Party to the IAEA Convention. Our bilateral agreements with neighbouring countries will ensure them information on the situation. There can be made improvements in the future in order to co-ordinate preventive measures with countries around us.

France

Les éléments définis ci-dessus sont mis en œuvre.

Dans le cas de Gravelines, la préfecture du Nord a signé avec la Belgique un accord de coopération dans le domaine de la protection et de la sécurité. Il n'y a pas d'accord signé avec la Grande-Bretagne, mais lors de la réalisation de l'exercice INEX 2000 des contacts ont été pris avec leur homologue pour l'échange d'informations.

Korea

In Northeast Asia region, no interstate coordination mechanism exists.

5. Note that Canada is a Party to the IAEA Convention on Early Notification of a Nuclear Accident, and has signed but has not ratified the IAEA Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency.

I. Alert Phase

1. Decision making

b) How would these preventive measures be co-ordinated if necessary with the neighbouring countries affected by the same event if your country were the accident country?

Spain

Le Conseil de la sécurité nucléaire, entité en charge de la notification, devra informer tous les pays susceptibles d'être affectés, de tous les détails pertinents, ainsi que des mesures en cours.

United Kingdom

Department of Trade & Industry (DTI) would be the lead Department responsible for notifying international institutions (Euratom and IAEA) and other countries of any accident in the United Kingdom, working in close liaison with DEFRA and other relevant organisations. Bilateral notification agreements are in place under which Norway, Denmark, The Netherlands, France and the FSU.

c) With whom does the cost for these preventive measures lie?

c) Sur qui pèse le coût de ces mesures préventives ?

Austria

If the cost were to be borne by the Governors of the "Länder" according to the Radiation Protection Act, they could be partly disbursed by a federal fund for disaster assistance; recourse against the operator or other persons liable is possible according to Austrian civil law.

Belgium

Le Plan d'urgence ne contient pas de dispositions à cet égard. Les tâches relevant du service public sont normalement gratuites (les autres mesures préventives seront couvertes par l'assurance de l'exploitant dans la mesure où elles sont utiles pour éviter l'accident ou en limiter les conséquences et pour autant qu'elles soient prises par l'assuré ou l'assureur = mesures de sauvetage).

Bulgaria

State Budget and special state fund.

Canada

With respect to the first category of preventive measures indicated above (i.e. limiting access to the affected zone, sheltering indoors, thyroid blocking and evacuation), certain costs would be compensated under the NLA (i.e. the operator's insurance) while others would be incurred by the municipality or province that implemented them. The operator's insurance would compensate direct costs of evacuation, such as accommodation and food. The NLA definition of damage includes any

I. Alert Phase

1. Decision making

c) With whom does the cost for these preventive measures lie?

damage arising out of or attributable to any loss of or damage to that property. Thus, those costs incurred by municipalities and provincial governments in providing emergency services would not be compensated under the NLA. However, under provisions of the province's emergency plan legislation, the province could reimburse a municipality for costs it incurred in providing assistance to an emergency area. Also, under the Disaster Financial Assistance Arrangements (DFAA) that exists between the Government of Canada and the provinces and territories, the federal government provides basic financial assistance to help provincial governments meet the costs of disasters which exceed what they might reasonably be expected to bear on their own. This financial assistance is based on a cost-sharing formula in which the federal share escalates with increases in eligible provincial per capita disaster expenditures.

With respect to the second category of preventive measures indicated (i.e. economic losses resulting from the prohibition of harvesting and selling foodstuffs or other products, or on limitation of other economic activities), certain costs would be compensated under the NLA while others would not. Again, because the NLA definition of damage includes any damage arising out of or attributable to any loss of or damage to that property, the operator's insurance would compensate economic losses arising directly from the loss of use or damage to property.

Czech Republic

Ministry of Interior, heads of local authorities of affected area and the operator (who ensures distribution of KI for public in Emergency Planning Zone).

Denmark

Initially, the costs will lie within the state.

Finland

If a nuclear accident as defined in the Finnish Nuclear Liability Law has occurred the costs for these preventive measures lie with the operator and his insurer. The preventive measures must be ordered by the appropriate authorities for costs to be recoverable. If there is no such nuclear accident costs for preventive measures will be borne by the government.

France

Il convient de distinguer les mesures préventives elles-mêmes (évacuations et moyens d'évacuation) des conséquences de ces mesures sur les personnes et les biens.

En phase d'alerte (pas d'accident au sens de la Convention de Paris, l'exploitant n'est pas responsable), le coût des mesures préventives est à la charge des Pouvoirs Publics.

Si le Préfet a déclenché le PPI (Plan particulier d'intervention), les conséquences peuvent être prises en charge par l'exploitant.

Germany

In accordance with Germany's federal structure, the measures are financed by public funds. In the case of emergency response and prevention measures the costs lie with the affected Länder. For measures on the basis of the Precautionary Radiation Protection Act (*Strahlenschutzvorsorgegesetz*), it is the Government that is responsible for the costs. This does not prejudice the possibility to have recourse against the party responsible for the accident on the basis of national and international liability provisions.

Ireland

Initially with the persons or agencies incurring the expenditure who would then seek to recover compensation from those at fault.

Japan

The national and local governments and the nuclear facility licensee.

Korea

Maybe operator.

Lithuania

The cost of all preventive measures are taken within a three kilometre radius from INPP (source of accident) will be borne by the INPP.

If the preventive measures are taken in other places, the cost will be borne by State (Lithuania). If the preventive measures need to be taken in neighbouring countries, the costs will be borne accordingly to the bilateral agreements.

Luxembourg, Romania, United Kingdom

The nuclear operator.

Poland

Since preventive measures are treated as a nuclear damage they shall be covered by the liable person i.e. an operator of the nuclear installation. When the operator is not liable costs lie with the State.

Spain

Étant donné que, selon la législation actuelle, la responsabilité civile de l'exploitant n'est pas mise en cause à cette phase, les coûts ne seront pas à la charge de l'exploitant.

Sweden

The costs for the preventive measures are covered by the financial allowances for each authority. The Swedish Nuclear Third Party Liability Act does not explicitly allow for compensation for preventive measures out of operator's funds. It cannot be ruled out however that a court would consider this head of damage eligible for compensation.

d) If this cost lies with the operator, to what extent does the operator take out insurance coverage to fulfil this obligation?

d) *Si ce coût pèse sur l'exploitant, dans quelle mesure l'exploitant le couvre-t-il ?*

Austria

To the extent foreseen in the Austrian Atomic Liability Act 1999.

Belgium, Spain

See *supra*.

Bulgaria

Article 16 of the Regulation on the Emergency Planning and Preparedness for Action in Case of a Radiation Accident:

(1) The NPP operator ensures the necessary shelter for the personnel, as well as for the personnel from the external organisations, who is at the NPP site.

(2) The NPP operator ensures the necessary emergency means for individual protection, means for communication and notification of the personnel and the population in the emergency planning zones.

(3) The NPP operator establishes and maintains on the NPP site at least one centre for management of the accidents situated in such a way as to be shielded from the effects of the accident in a maximum way.

I. Alert Phase

1. Decision making

d) If this cost lies with the operator, to what extent does the operator take out insurance coverage to fulfil this obligation?

Canada

The NLA requires the operator to maintain insurance against the liability imposed on the operator by the Act. The operator is not required to take out any additional coverage. The operator's policy would cover evacuation costs to the extent and according to the terms that exist in the policy.

While the NLA does not make specific reference to preventive measures, the operator's policy would cover loss of use of property incurred as a result of an evacuation, whether the evacuation was necessary because of an actual release or the imminent danger of a release. This, foreseeably, would cover such items as food and lodging costs incurred by people forced to evacuate, and loss of income associated with loss of use of property.

There is not, however, any provision in the NLA or the policy for costs incurred by governments or organizations in providing shelter and food for evacuees. As indicated in question (c), these costs would be recoverable under the Disaster Financial Assistance Arrangements (DFAA).

Czech Republic

According to insurance contract of liable operator with the Czech Nuclear Insurance Pool.

France

EDF prend en charge de façon purement volontaire ces conséquences par le biais d'une compagnie d'assurance, qui agit alors en qualité de prestataire de service. En effet, en l'occurrence, EDF dispose d'une garantie financière qui n'est pas une assurance.

Germany

The costs for preventive measures are not included in the insurance coverage. The nuclear third party liability provisions do not cover this risk. This risk, the evacuation risk in particular, could be covered by an additional cost item in the insurance conditions.

Japan

Insurance companies shall not indemnify costs expended by the operator himself for prevention of spread or mitigation of damage, which are not paid as a part of his legal liability to victims, pursuant to Paragraph 2 of Article 3 of our general conditions.

It says that as follows:

Article 3. Scope of Loss Covered

2. The Companies shall not be liable to indemnify the Insured for any expenses he incurs in minimizing the loss or preventing its spread, with the exception of the expenses referred to in the preceding paragraph and payments he incurs in fulfillment of his liability.

I. Alert Phase

1. Decision making

d) If this cost lies with the operator, to what extent does the operator take out insurance coverage to fulfil this obligation?

Korea

Same as the third party liability insurance.

Lithuania

The extent foreseen in the Law on Nuclear Energy of the Republic of Lithuania.

Luxembourg

L'exploitant est sensé indemniser les coûts intégraux.

Poland

It takes out insurance for the total amount of the preventive measures costs.

Romania

Law No. 111/1996 republished, on the Safe Conduct of Nuclear Activities, provides an authorization condition.

Switzerland

En premier lieu par son assurance mais coverage for preventive measures, taken by the competent authorities is optional, in practice Swiss nuclear operators take out insurance up to 5 million CHF. Ensuite sur l'ensemble des actifs de l'exploitant puisque le droit suisse connaît le principe de la responsabilité civile nucléaire illimitée de l'exploitant.

United Kingdom

Cover is available as it is uncertain if the operator could be liable and also if liability falls under the Paris Convention / national legislation.

e) What are the conditions governing such insurance coverage?

e) Quelles sont les conditions de cette couverture ?

Austria

Provision of Security

Section 6:

(1) The operator of a nuclear installation situated in Austria must obtain insurance to cover his liability. This insurance policy must remain in effect for at least ten years after operations at the nuclear installation have ceased. It must extend to all damage caused during the term of the policy and which gives rise to claims no later than ten years after the damage occurred. This security requirement does not extend to damage resulting from war, armed conflict, civil war, riot or rebellion.

(2) The insurance policy must provide coverage of at least 5 600 000 000 Schillings (ATS)⁶ per incident plus 560 000 000 ATS⁷ for interest and costs, except in the case of experimental and research reactors, where the relevant amounts shall be 560 000 000 ATS per incident and 56 000 000 ATS⁸ for interest and costs.

(3) There is no obligation to insure where the Federal government (Bund) or State (Land) itself is liable or has assumed the liability of the operator of a nuclear installation for an amount not less than those amounts indicated in Paragraphs 1 and 2. The Federal Minister of Finance is authorised to assume such liability in cases where the purchase of liability insurance is beyond the financial means of the liable person, and where it is in the public interest that the government assume such liability.

(unofficial translation)

Section 8:

(1) The mandatory insurance required under Section 6 (...) must be secured from an insurer licensed to provide such insurance cover in Austria. The policy must be governed by Austrian law. The insurer shall notify the Federal Minister of Finance of the terms of the policy prior to its application.

(2) The office which should receive the insurance notification provided for in Section 158c, Paragraph 2 of the Insurance Law of 1958 is that of the authorities responsible for the licensing of nuclear installations and of the transport of nuclear material.

Belgium, Canada, Germany, Spain

See *supra*.

6. 406 967 87 EUR.

7. 40 696 78 EUR.

8. 4 069 679 EUR.

Czech Republic

JPO (General Insurance Conditions for insuring Liability for Nuclear Damage, approved by the Ministry of Finance of the Czech Republic under No. 321/2969/1998 of January 1998).

France

Le dédommagement est forfaitaire. Il n'est pris en charge qu'en fonction de la matérialité des faits et de l'existence d'un préjudice, appréciés par le prestataire de service au vu de tous éléments de preuve disponibles pour les personnes concernées.

Nota : dans le cadre d'une garantie d'assurance, les conditions et le montant forfaitaire de l'indemnisation pourraient être précisés à l'avance. Par exemple : x EUR/personne évacuée/jour, avec un plafond constituant l'engagement maximum de l'assureur, ce montant venant en supplément de la garantie obligatoire.

Japan

It depends on whether the nuclear operator who is an only insured due to the rule of the legal channeling is liable or not.

For your reference, quoting the insurance companies' liability from our general conditions as follows:

Article 1. Companies' Liability for Payment

The Insurance Companies shall, subject to the Conditions hereinafter provided, indemnify the Insured for any loss which he shall incur through a legal obligation to pay damages because of nuclear damage or non-nuclear damage caused by any accident within the premises specified in this Policy that occurs during the Policy Period.

Korea

Measures must be taken by the order of competent authority.

Lithuania

Law on Nuclear Energy

Chapter X – Prevention of Nuclear Accidents – Management of Accidents and their Consequences

Article 53. Authorities Responsible for the Prevention of a Nuclear Accident and the Management of the Accident and Its Consequences

1. Prevention of a nuclear accident and management of the accident and its consequences shall be the responsibility, within the scope of their competence, of the operator of the nuclear facility, the Government of the Republic of Lithuania and other public state authorities, also local authorities of the territory where nuclear facilities are sited or where there is a possibility of a harmful impact of a possible accident.

2. The Government of the Republic of Lithuania shall be responsible for the nuclear accident preparedness on a national scale.

Chapter XI – Civil Liability in the Sector of Nuclear Energy

Article 59. Appraisal of Damage

2. The scope of material liability of the facility operator for nuclear damage shall be limited to the amount in litas equivalent to the minimum amount set in Article V of the Vienna Convention. It shall be calculated in accordance with the official litas and US dollar exchange rate on the day when the damage was inflicted.

Article 61. Guarantees of Compensation for Damage

1. The operating organisation of the nuclear facility must insure the facility it is operating or procure in some other way the funds necessary for the compensation of the nuclear damage.

2. If the insurance and other funds are not sufficient for the compensation of the damage, the payment of the balance shall be guaranteed by the Government pursuant to the obligations assumed by the Republic of Lithuania according to the Vienna Convention.

Article 63. Limitation of Actions

Damages for the harm caused by radiation from a nuclear facility or from the radioactive materials in the course of carriage may be enforced if an action is not brought to court or arbitration within ten years from the date of the moment of harm.

The Law on the Foundation of Decommissioning of the State Enterprise Ignalina NPP of the Republic of Lithuania

Article 7. Utilisation of the Foundation funds

1. The Foundation funds shall be used for the following:

3) Compensation for the nuclear damage.

Luxembourg

Le Gouvernement doit approuver *a priori* ou *a posteriori* les mesures préventives prises.

Romania

The applicant shall institute an insurance or any other financial guarantee to cover his civil liability for nuclear damages [Law No. 111/1996 republished, Article 18(e), and Law No. 703/2003 on Civil Liability for Nuclear Damage, Article 13].

Switzerland

Les mesures doivent avoir été recommandées ou ordonnées par l'autorité compétente. Le gain manqué par suite de l'application des mesures n'est pas couvert.

United Kingdom

A separate indemnity limit in addition to the compensation limit (in case it is not covered by the Paris Convention).

2. Dissemination of information

2. Diffusion de l'information

a) **Has your country concluded bilateral agreements with its neighbouring countries in the field of exchange of information and assistance in the event of nuclear accidents? If so, please specify the agreements and procedures for communication from one country to another**

a) *Votre pays a-t-il conclu des accords bilatéraux avec ses pays voisins en matière d'échange d'informations et d'assistance en cas d'accident nucléaire ? Le cas échéant, précisez les accords et les procédures pour la communication d'un pays à l'autre.*

Austria

Bilateral agreements exist with the following countries: Belarus (signed at Minsk on 9 June 2000); Czech Republic (Official Gazettes Nos. 565/1990 and 123/1997); Germany (Official Gazette No. 892/1994); Hungary (Official Gazette No. 454/1987); Poland (Official Gazette No. 643/1990); Russian Federation (Official Gazettes Nos. 130/1990 and 257/1994); Slovak Republic (Official Gazettes Nos. 565/1990 and 1046/1994); Slovenia (Official Gazette III No. 176/1998); Switzerland (Official Gazette III No. 201/2000); Tadjikistan (Official Gazettes No. 130/1990 and III No. 4/1998); Ukraine (Official Gazette III No. 152/1998).

Fax transmission is the means of communication usually foreseen.

I. Alert Phase

2. Dissemination of information

a) Has your country concluded bilateral agreements with its neighbouring countries in the field of exchange of information and assistance in the event of nuclear accidents? If so, please specify the agreements and procedures for communication from one country to another.

Belgium

Des accords existent ou sont en cours de négociation avec la France (1997, encore à ratifier par la Belgique), les Pays-Bas (1990), le Grand-Duché du Luxembourg (à l'étude). Au niveau de l'Union européenne, le système ECURIE organise l'échange rapide d'informations sur les dangers d'irradiation. Les informations sont reprises sous un format standard et transmises via la Commission. La Belgique applique également les Conventions internationales de l'AIEA (notification rapide et assistance).

Bulgaria

Bilateral agreements exist with the following neighbouring countries: Republic of Romania (State Gazette No. 87/1997, in force by 1 January 1998); Republic of Turkey (State Gazette No. 15/1998, in force by 21 May 1998); and Republic of Greece.

Bulgarian contact point is the Committee on the Use of the Atomic Energy for Peaceful Purposes (CUAEPP).

Fax transmission is the means of communication usually foreseen.

Canada

Canada has such a bilateral agreement with the US: the Canada-United States Joint Radiological Emergency Response Plan of July 27, 1996.

Section 501.1 of the Plan sets out the communications procedures for the alert phase.

The Lead Federal Agency will ensure that a radiological event in either Canada or the United States which may require a response under the Joint Plan, will be communicated promptly to the other country's point of contact as follows:

- For incidents occurring in the United States, the official alerting and/or activation messages under the Joint Plan will be sent to the OCIEP, via the telephone number, fax number or e-mail address indicated in the Plan.
- For incidents occurring in Canada, the official alerting and/or activation messages under the Joint Plan will be sent to the National Response Center (by the telephone numbers or fax number indicated in the Plan).

Section 502.3 of the Plan sets out provisions for situation reports to the other country, participation of a federal liaison team, and requests for mutual aid.

I. Alert Phase

2. Dissemination of information

a) Has your country concluded bilateral agreements with its neighbouring countries in the field of exchange of information and assistance in the event of nuclear accidents? If so, please specify the agreements and procedures for communication from one country to another.

Czech Republic

Yes, it has (with Austria, Germany, Hungary; with Slovakia and Poland is now being prepared).

The information is exchanged by the means of the contact point, similarly to the IAEA contact point communication procedures.

Denmark

Yes, as mentioned above. We normally communicate by fax to a national authority in the country. Special agreements on using e-mail has been made.

Finland

Finland has bilateral agreements on early notification of a nuclear accident and on the exchange of information on nuclear facilities with: the Nordic countries (Sweden, Norway, Denmark); Russia; Germany; and Ukraine.⁹

In Finland, the Radiation and Nuclear Safety Authority (STUK) is the national warning point and the competent authority (a domestic nuclear accident, a radiological emergency and an accident abroad). STUK is responsible for notifying the foreign countries and sending information about the situation and countermeasures. STUK has a 24-hour duty system.

France

Voir le vade-mecum reproduit à l'annexe II du présent compte-rendu.

Germany

Germany has bilateral agreements with about 25 countries on the exchange of experience and information in the field of nuclear safety and radiation protection including early notification in case of a nuclear accident with transboundary impact. A function of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) is to fulfil its international and bilateral information obligations. As part of these obligations, the BMU maintains contact with the European Union, the IAEA and with other nations. In this context, corresponding bilateral agreements have been concluded with a large number of states, these are:

9. Ndr: also with Estonia.

I. Alert Phase

2. Dissemination of information

a) Has your country concluded bilateral agreements with its neighbouring countries in the field of exchange of information and assistance in the event of nuclear accidents? If so, please specify the agreements and procedures for communication from one country to another.

<i>Agreement with</i>	<i>Major Agreement content</i>	<i>Signature, citation</i>
Argentina	Exchange of information, co-operation	8 October 1981 (BGBl. II 1981, p. 958)
Austria	Exchange of information	3 August 1993 (BGBl. II 1995, p. 482)
Brazil	Exchange of information, co-operation	10 March 1978 (BGBl. II 1978, p. 950)
Bulgaria	Exchange of information	26 March 1993 (BGBl. II, 1993, No. 29)
Canada	Exchange of information, co-operation	23, May 1991 (not published)
China	Promotion of co-operation	12 April 1992 (BGBl. II 1993; No. 29)
Czechoslovakia (former)	Exchange of information	30 May 1990 (BGBl. II 1990, p. 1307)
Denmark	Mutual informing on the construction of nuclear installations close to the border; Exchange of information	4 July 1977 (not published) 13 October 1987 (BGBl. II 1988, p. 1099)
Finland	Early notification in the case of nuclear accidents; Exchange of information in case of events and accidents; R&D on management and final disposal of radwaste	21 December 1992 (BGBl. II 1993, No. 29) 28 January 1981 (BGBl. II 1981, p. 885) 6 May 1991 (BGBl. II 1992, No. 36)
Hungary	Exchange of information	26 September 1990 (BGBl. II 1991, p. 889)
Japan	Exchange of information	1 September 1989 (not published)
The Netherlands	Mutual informing on nuclear installations close to the border, within the frames of a Dutch-German Commission (NDKK); Exchange of information on events in NPPs Mutual aid in case of catastrophes, nuclear accidents included	28 October 1977 and 21 May 1981 (not published) 7 June 1988 (BGBl. II 1992, No. 9)
Norway	Exchange of information	10 May 1988 (BGBl. II 1988, p. 1097)
Spain	Co-operation	14 May 1988 (not published)
Sweden	Early notification in the case of nuclear accidents; exchange of information	25 September 1990 (BGBl. II 1991, p. 421)
Switzerland	Radiological emergency preparedness; Mutual informing on the construction and operation of nuclear installations close to the border; Third party liability, regarding the peaceful use of nuclear energy	31 May 1978 (BGBl. II 1980, p. 563) 10 August 1982 (BGBl. II 1983, p. 734) 22 October 1986 (BGBl. II 1988, p. 598)
United Kingdom	Important nuclear safety issues; elaboration of Safety standards	4 April 1979 (BGBl. II 1979, p. 434)
Ukraine	Exchange of information	10 June 1993 (BGBl. II 1994, No.12)
United States	Exchange of information, co-operation	6 July 1981 (BGBl. II 1981, p. 657 and BGBl. II 1987, p. 197 and BGBl. II 1996, No. 9)
USSR (former)	Early notification in case of a nuclear accident; Exchange of information	25 October 1988 (BGBl. II, p. 165)

I. Alert Phase

2. Dissemination of information

a) Has your country concluded bilateral agreements with its neighbouring countries in the field of exchange of information and assistance in the event of nuclear accidents? If so, please specify the agreements and procedures for communication from one country to another.

Ireland

An informal arrangement is in place whereby the Department for Public Enterprise (the department responsible for the co-ordination of the National Emergency Plan for Nuclear Accidents) will be informed by the UK Department of the Environment, Food and Rural Affairs, or from the UK Nuclear Installations Inspectorate (NII) of any nuclear incident occurring in the United Kingdom. Information will be exchanged via telephone and fax.

In addition, relevant information will be exchanged via the European Communities Urgent Radiological Information Exchange (ECURIE) system.

Japan

In this field, we have no bilateral agreements with neighbouring countries. But in the cooperation arrangement on nuclear safety between Japan and China, we agreed to notify of accidents at nuclear installations.

Korea

Republic of Korea ratified the two Vienna Conventions (1986) but there is no concerned bilateral agreement with Japan nor China.

Lithuania

- Agreement between the Kingdom of the Denmark and the Government of the Republic of Lithuania Concerning Information Exchange and Co-operation in the Field of Nuclear Safety and Radiation Protection, signed on 16 March 1993.
- Agreement between the Government of the Republic of Lithuania and the Government of the Kingdom of Norway on Early Notification of Nuclear Accidents and on the Exchange of information on Nuclear Facilities, signed on 13 February 1995.
- Agreement between the Government of the Republic of Poland and the Government of the Republic of Lithuania on Early Notification of a Nuclear Accident, and on Co-operation in the Field of Safety and Radiation Protection, signed on 2 June 1995.

Luxembourg

Des accords bilatéraux d'assistance en cas d'accident nucléaire ont été conclus avec nos trois États voisins (France, Belgique, Allemagne). Un accord bilatéral sur l'échange d'informations a été conclu avec la France.

I. Alert Phase

2. Dissemination of information

a) Has your country concluded bilateral agreements with its neighbouring countries in the field of exchange of information and assistance in the event of nuclear accidents? If so, please specify the agreements and procedures for communication from one country to another.

Poland

Some bilateral agreements are signed, some are being prepared (no one is in force yet) according to the provisions of the Convention of Early Notification of a Nuclear Accident or Radiological Emergency. The President of the National Atomic Energy Agency is responsible for notification of accidents and emergencies.

Spain

Bien que l'Espagne dans le passé avait souscrit avec ses pays voisins des accords bilatéraux, ses accords portaient sur les installations situées près des frontières. Actuellement, on doit considérer que les Conventions applicables seront celles sur la notification rapide d'un accident nucléaire et l'assistance en cas d'accident nucléaire ou d'urgence radiologique, de 1986, ainsi que la Directive du Conseil 89/618/Euratom. L'Entité en charge de transmettre l'information est le Conseil de la sécurité nucléaire.

Sweden

At the outset it should be noted that Sweden is a Contracting Party to the IAEA Convention on Early Notification of a Nuclear Accident, 1986. In addition, Sweden has concluded bilateral agreements on notification/warning and exchange of information with several states. These agreements are *inter alia*:

- (i) Agreement of 21 October 1986 with Denmark on the Exchange of Information and Notification regarding Swedish and Danish Nuclear Installations and Other Matters;
- (ii) Agreement of 25 February 1987 with Finland on the Exchange of Information and Notification regarding Swedish and Finnish Nuclear Installations and Other Matters;
- (iii) Agreement of 21 October 1986 with Norway on the Exchange of Information and Notification regarding Swedish and Norwegian Nuclear Installations and Other Matters;
- (iv) Agreement of 13 January 1988 with the Soviet Union on the Notification of a Nuclear Incident and the Exchange of Information regarding Nuclear Installations;
- (v) Agreement of 25 September 1990 with Germany on Early Notification of a Nuclear Incident and on Exchange of Information and Experiences regarding Nuclear Safety and Radiation Protection.

Very briefly, the gist of the agreements is that the Contracting Parties undertake to inform each other immediately on nuclear incidents in their respective territories.

Sweden also intends to conclude such agreements with other Baltic States.

I. Alert Phase

2. Dissemination of information

a) Has your country concluded bilateral agreements with its neighbouring countries in the field of exchange of information and assistance in the event of nuclear accidents? If so, please specify the agreements and procedures for communication from one country to another.

Sweden is also obligated under Community law to provide early notification to other Member States of the EU in case of a nuclear incident. The exchange of information is co-ordinated by the European Commission.

Switzerland

- Convention du 31 mai 1978 entre le Conseil fédéral suisse et le Gouvernement de la République fédérale d'Allemagne sur la protection contre les radiations en cas d'alarme (0.732.321.361);
- Échange de notes du 25 juillet 1986 entre la Suisse et la République fédérale d'Allemagne concernant l'application de la Convention des 31 mai 1978/15 février 1980/25 juillet 1986 sur la protection contre les radiations en cas d'alarme (0.732.323.49);
- Accord du 30 novembre 1989 entre le Conseil fédéral suisse et le Gouvernement de la République française sur les échanges d'informations en cas d'incident ou d'accident pouvant avoir des conséquences radiologiques (avec échange de lettres) (0.732.324.54);
- Accord du 15 décembre 1989 entre le Conseil fédéral suisse et le Gouvernement de la République italienne sur l'échange rapide d'informations en cas d'accident nucléaire (0.732.441.36);
- Accord du 22 octobre 1986 entre la Confédération suisse et la République fédérale d'Allemagne au sujet de la responsabilité civile en matière nucléaire (0.732.81);
- Accord du 19 mars 1999 entre la République d'Autriche et le Conseil fédéral suisse portant sur l'échange rapide d'information dans le domaine de la sûreté nucléaire et de la radioprotection (entré en vigueur le 1^{er} janvier 2001 ; non encore publié).

United Kingdom

- International Atomic Energy Agency (under the November 1986 Convention on Early Notification of a Nuclear Accident) by fax or telex to the Emergency Response Unit at Wagramer Strasse, Vienna.
- European Commission (under the December 1987 arrangements for the early exchange of information in the event of a radiological emergency – Council Decision 87/600), notification would be via the Commission's Telex/CODECS Centre in Brussels to Luxembourg.

I. Alert Phase

2. Dissemination of information

a) Has your country concluded bilateral agreements with its neighbouring countries in the field of exchange of information and assistance in the event of nuclear accidents? If so, please specify the agreements and procedures for communication from one country to another.

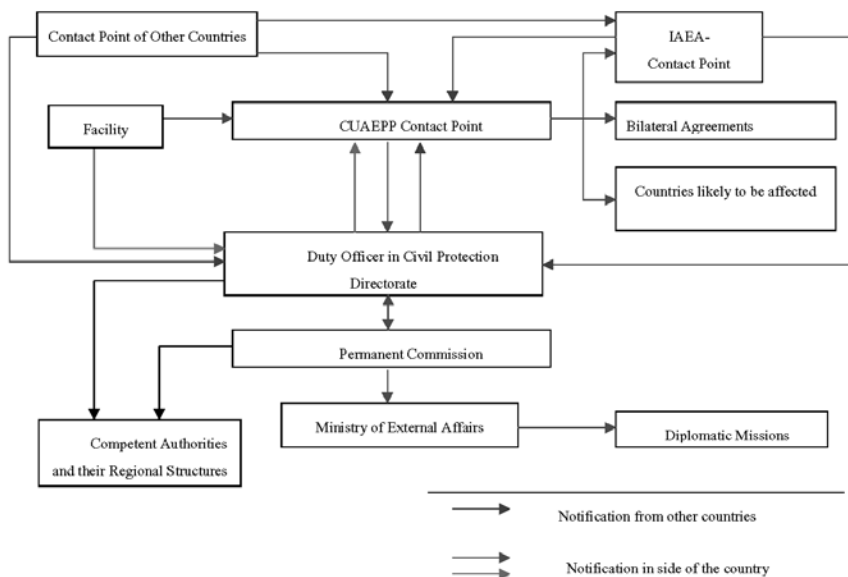
- Bilateral agreements in place with Norway (bilateral agreement 1987), Denmark (bilateral agreement 1987), The Netherlands (1988 Memorandum of Understanding), France (under a July 1983 agreement, amended in 1993) and the FSU (bilateral agreement 1990); under which they would be formally notified of any accident occurring in the United Kingdom.

b) What is the applicable procedure for dissemination of information at national level:

b) Quelle est la procédure pour la transmission des informations au plan national :

Bulgaria

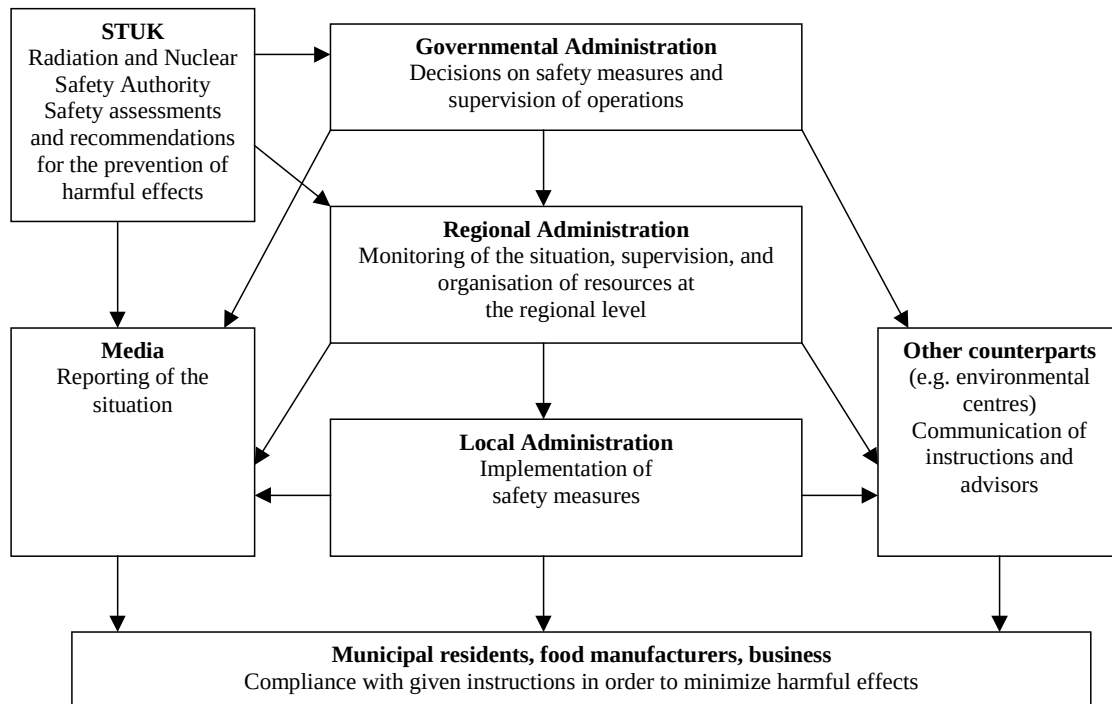
Information Exchange



Finland

In Finland, STUK receives all the alarms and notifications relating to radiation and nuclear safety (24-hour duty system). STUK notifies the duty officers of the principal ministries. The ministries give the alarm to their own organisation and to their regional and local administration, if required. If necessary, STUK, too, will send the alarm message to emergency response centres, which in turn will pass on the information to provinces and municipalities. STUK will also inform the media about the situation and about operations that have been launched.

Responsibilities and communication in a large-scale radiation hazard situation



France

Éléments communs : sont applicables en ce domaine les textes officiels suivants :

- Loi sur la sécurité civile du 22 juillet 1987.
- Directives interministérielles n° 2202 du 13 juin 1989 (coordination de l'action des pouvoirs publics en cas d'incident ou d'accident concernant la sécurité nucléaire), n° 5401 du 30 juillet 1987 (information du public et des médias en cas d'incident ou d'accident concernant la sécurité nucléaire), n° 444 du 1^{er} juillet 1991 (organisation des pouvoirs publics en cas d'accident touchant une installation nucléaire civile) et n° 9100 (notification rapide d'une situation d'urgence radiologique).

Germany

Reporting obligations and reporting routes have been determined. Both the first information about incidents/accidents and significant changes of the situation after an incident/accident are actively forwarded (push mechanism). The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) as the competent national authority will inform the other national authorities affected and the länder. They are in charge of informing the local authorities. Additional or supplementary information will be actively polled by the authorities affected (pull mechanism: standard means of communication such as phone, fax, Internet and Intranet).

Spain

L'Espagne a adopté les mesures sur l'information de la population selon la Directive mentionnée.

Switzerland

Une obligation de collaborer avec le Comité directeur radioactivité figure dans l'OROIR. Elle s'impose à toutes les collectivités publiques (cantons, communes) ainsi qu'aux exploitants d'installations nucléaires.

United Kingdom

The nuclear operators would alert the local police and other local and national agencies through an automated telephone messaging / cascade system. DTI as the lead Department for civil nuclear emergencies in England & Wales has a separate cascade list to notify other Ministries and Dependent States e.g. Jersey, Guernsey, Alderney and the Isle of Man. The Scottish Executive has lead responsibility for emergencies occurring in Scotland and has similar arrangements.

DTI Ministers would make statements, as appropriate, about the developing situation. DTI would be working in close collaboration with the agencies at the Local Emergency Centre to ensure that accurate and up-to-date information was presented to the media. We would expect the main media response to be concentrated on the Media Briefing Centre, which would be located nearby to the Local Emergency Centre.

- **between the various national competent authorities?**
- *entre les différentes autorités nationales compétentes ?*

Austria

By fax via the Federal Alarm Centre within the Ministry of the Interior; if so decided the transmission of information is subject to coordination by the Federal Chancellery, State Crisis Management (I/A/9).

Belgium

Via les responsables des services compétents comme prévu au Plan d'urgence.

Bulgaria

Each of the national competent authorities has an employee on duty permanently on call. The CUAEPP and the State Agency for Civil Protection exchange information between them and give information to the other national competent authorities.

The CUAEPP publishes a list of communications once per year at least. The telephone numbers and other means of communication of each competent authority in Bulgaria are described in this list.

Canada

As mentioned in the introductory remarks,¹⁰ the Federal Nuclear Emergency Plan (FNEP) establishes the Government of Canada's organized and integrated capability to provide timely and coordinated response by federal departments and agencies to a peacetime nuclear emergency occurring in Canada or abroad. Health Canada is the lead department.

Dissemination of information between the various national competent authorities is carried out under the National Support and Coordination Structure, which is an organization that is activated when the FNEP is implemented.

Czech Republic

Sending a fax message + phone call confirming the receipt of the fax message

Denmark

According to the situation and alert stage representatives from various authorities will be part of the main command post at DEMA. If not, DEMA may call on relevant authorities in order to insure proper and fast flow of information.

Ireland

Information will be dissemination between the national competent authorities via the Emergency Response Co-ordination Committee (ERCC) whose membership consists of senior government and national agency officials, and a representative of the Radiological Protection Institute of Ireland to provide technical support.

10. These remarks are reproduced in Appendix 1 to this Annex.

Japan

- When the competent Minister has received the initial report from the licensee, the Minister informs other related government organisations and local governments about the accident, according to the procedures set up by the Basic Act for Disaster Countermeasures.
- When the state of emergency is declared, the Prime Minister set up the Nuclear Disaster Countermeasures Headquarter, which consists of the Prime Minister, the competent Minister and members from other related government organisations.
- When the state of emergency is declared, all related organisation of national, prefectural and municipal governments meet in Off-Site Centre to share information and to aid co-operation in implementing their immediate emergency countermeasures.

Korea

By pre-established reporting infrastructure in accordance with national emergency plan.

Lithuania

The management of the Ignalina NPP shall announce information about an accident which has happen at NPP and the situation formed in compliance with the sample of the primary notice about an accident at the Ignalina NPP and indicate the following data:

- character of the accident, the ways and duration of emission of radioactive materials into the environment;
- total amount of radioactive materials ejecting by a reactor;
- power of the source of radioactive materials and the modification thereof with the time flying;
- radio-nuclide composition of emission;
- distribution of concentration of radioactive materials at different distances from the source of ejection;
- meteorological conditions at the moment of emission.

If the accident happens, the Department of Civil Protection shall notify ministries and government institutions in compliance with the established procedures.

I. Alert Phase

2. Dissemination of information

b) What is the applicable procedure for dissemination of information between the various national competent authorities?

The Department of Civil Protection shall transmit signals and information about an accident at the Ignalina NPP to district departments and the managing bodies of cities and districts through the republican automated system “Signalas” for warning managing bodies and residents, state communication means (the telegraph of general use, the telegraphs of subscribers, the telephone, and facsimile means) as well as through the direct telephone, telegraph, and radio channels additionally organised by the Department of Civil Protection.

Luxembourg

Liaisons téléphoniques spéciales et radiophoniques dédiées ainsi que le courrier électronique.

Spain

Selon un Décret royal de 1992, adopté en conformité avec la jurisprudence du Tribunal constitutionnel, toutes les compétences en matière d’urgence nucléaire sont attribuées aux autorités nationales compétentes, sans préjudice de la coopération des autorités locales.

Switzerland

Voir réponse *supra*.

United Kingdom

The European Community Urgent Radiological Information Exchange (ECURIE) system would be used.

- **between the various local competent authorities?**
- *entre les différentes autorités locales compétentes ?*

Austria

By fax between the contact points in the districts and municipalities.

Belgium, Czech Republic, Switzerland

See *supra*.

Bulgaria

The various local authorities exchange the information received by the national authorities.

Canada

This is addressed in provincial nuclear emergency plans. For example, the Province of Ontario Nuclear Emergency Plan (Provincial Master Plan) [Section 5.3.3] stipulates that a nuclear installation or establishment shall make an initial notification to the prescribed provincial and municipal authorities upon the occurrence of an event or condition which has implications for public safety, or could be of concern to the authorities responsible for public safety. Emergency Measures Ontario (EMO) shall decide on the initial response level to be adopted. EMO shall then either issue a notification to the municipal emergency response organization (implemented under municipal emergency plans) directing partial or full activation of emergency plans, or contact the municipality and other organizations, as appropriate, and tell them what other level of initial response is to be adopted [Annex G, Section 4.0].

Denmark

In local operations tactical leader (police) and technical leader (leader fire brigade) co-ordinate the communication themselves.

Ireland

Local authorities will be directed by the national authority to which they are responsible (Department of the Environment and Local Government, under the guidance of the Emergency Response Coordination Committee).

Japan

When the state of emergency is declared, all related organization of national, prefectural and municipal governments meet in Off-Site Centre to share information and to aid cooperation in implementing their immediate emergency countermeasures.

Korea

By pre-established reporting infrastructure in accordance with national emergency plan / National emergency plan.

Lithuania

In addition to this, the signals and information of CSD (the Department of Civil Protection) may be also transmitted to the managing bodies of Ignalina and Zarasai through the local warning system of the NPP zone, and information and signals may be transmitted from NPP to the mentioned districts by the telephone.

The Department of Civil Protection shall transmit signals, information about possible danger, and recommendations on behaviour shall be transmitted to the residents through the automated warning system "Signalas" to which is connected centrally controlled electric sirens, 126 street loudspeakers as well as through Lithuanian radio and television.

The district departments of the Department of Civil Protection shall transmit the signal and other information received from the Department of Civil Protection to the managing bodies (municipalities) of cities and districts by telephones, the telegraph of subscribers, the telegraph of general use, fax or by organized radio broadcasting or through radio stations.

The municipalities of cities and districts shall transmit the signal and information received to *seniunijos*, *apylinkės*, companies, enterprises, and organizations by all operating communication means and messengers in compliance with the schemes prepared in advance and adopted by mayors of cities and the governors of districts.

The managing bodies of cities (municipalities) and districts shall transmit the signal and information received to the residents through the local automated systems for warning the residents of cities and districts, whereas the residents of micro-districts which are not equipped with automated warning systems shall be notified by the police and other specialised cars equipped with loudspeakers and moving by the preliminary established route.

The employees of companies, enterprises, and institutions and the residents of micro-districts, settlements, and villages shall be notified about danger by the managers of enterprises and institutions and the heads of managing bodies of settlements through all operating communication means, wired radio units, networks with internal and outside loudspeakers, electric locally controlled and manually operated sirens, the sound signals of transport and enterprises, and messengers (by foot and with vehicles) in compliance with the schemes prepared in advance and approved by the managing bodies of cities and districts.

Luxembourg

Liaisons radiophoniques, téléphoniques, ainsi que le courrier électronique.

United Kingdom

Coordination of any domestic civil nuclear emergency would be carried out through the Local Emergency Centre (LEC), usually based at the relevant County Police Headquarters, and would involve all appropriate local authorities, central agencies and emergency services. A key role of the LEC is to ensure that the media receive accurate and timely briefing through the nearby Media Briefing Centre.

- **between national and local authorities?**
- *entre les différentes autorités nationales et locales compétentes ?*

Austria

By fax.

Belgium, Czech Republic, Ireland, Luxembourg, Switzerland

See *supra*.

Bulgaria

Each national authority disseminates information to its local subdivisions. The Permanent Commission has its subdivisions in the whole territory of the country.

Canada

The Federal Nuclear Emergency Plan (FNEP) describes the federal response in support to a province during a nuclear emergency or following a nuclear accident in a foreign country. Provincial annexes are developed to improve the interface between the federal and the provincial organizations. The aim of the provincial annexes is to describe the coordination principles and mechanisms upon which provincial-federal cooperation can be established during a nuclear emergency.

Denmark

DEMA ensures the communication via the staff member representing the relevant authority.

France

L'autorité territoriale (préfet, préfet maritime, chef d'État major de la marine) dès qu'elle a connaissance d'un accident entraînant ou susceptible d'entraîner une émission de matières radioactives ou des taux anormaux de radioactivité adresse la notification renseignée aux autorités centrales (Ministres de l'Industrie, de l'Intérieur, de la Santé, de la Défense, des Transports), au Secrétaire général du Comité interministériel de sécurité nucléaire (SGCISN).

Les autorités centrales complètent la notification, en précisant notamment les États physiquement touchés et la transmettent au SGCISN pour la notification internationale. Le SGCISN est aussi chargé d'informer le Président de la République et le Premier Ministre.

Japan

- When the competent Minister has received the initial report from the licensee, the Minister informs other related government organizations and local governments about the accident, according to the procedures set up by the Basic Act for Disaster Countermeasures.
- When the state of emergency is declared, all related organization of national, prefectural and municipal governments meet in Off-Site Centre to share information and to aid cooperation in implementing their immediate emergency countermeasures.

Korea

National emergency plan.

Romania

The National Commission for Nuclear Activities Control.

United Kingdom

Close liaison would be maintained between all the key local and national agencies and centres involved in the response. Agencies would send liaison representatives, as appropriate, to the Local Emergency Centre and DTI's Nuclear Emergency Briefing Room in London. These centres would co-ordinate closely with the operator's Emergency Room and other centres such as the local authority emergency room. Special communications exist between key centres.

- c) **How would your national authorities organise feedback of information to the accident country on the radiological consequences of the accident in your country?**
- c) *Comment vos autorités nationales organisent-elles le retour d'informations vers le pays de l'accident sur les conséquences radiologiques de l'accident dans votre pays ?*

Austria

In the cases where a bilateral agreement exists to this effect, i.e. with the Czech Republic, the Slovak Republic and Slovenia, early warning data are transmitted automatically to these countries. The EURDEP data exchange system is currently being tested.

Belgium

Voir *supra* ainsi que via l'Unité d'information propre au Plan d'urgence ainsi que par le système ECURIE.

1. Alert Phase

2. Dissemination of information

c) How would your national authorities organise feedback of information to the accident country on the radiological consequences of the accident in your country?

Bulgaria

Representatives of all competent authorities compose the Emergency centre of the Permanent Commission. Every information received in the Emergency centre is immediately disseminated to all those representatives.

Canada

Canada is a Party to the IAEA Convention on Early Notification of a Nuclear Accident, which defines when and how the IAEA should be notified of an event with potential transboundary consequences, or when and how the IAEA would notify the signatories of an international event which could have an impact in their country. Thus, notification, subsequent information and data exchange will follow procedures described in the Convention. In the National Support Centre established under FNEP, the Coordination and Operations Group will be responsible for ensuring that links with international organizations are established and maintained through Foreign Affairs and International Trade and other appropriate federal departments and agencies.

Also, under Canada's bilateral agreement with the US: the Canada-United States Joint Radiological Emergency Response Plan of July 27, 1996, Section 502.3 of the Plan sets out provisions for situation reports to the other country, participation of a federal liaison team, and requests for mutual aid [see answer to question a), sub-title 2, title I].

Czech Republic

State Office for Nuclear Safety is obliged to ensure the international radiation situation data exchange.

Denmark

By fax or e-mail.

Finland

Finland (STUK) sends without prior request information about the situation and countermeasures to the accident country (if other than a country with whom Finland has bilateral agreement), countries with the bilateral agreements, IAEA, EU and WHO. Written notifications are sent by the fax. E-mail and phone contacts are used, also.

France

Par l'utilisation des instruments existants : AIEA (Convention sur la notification rapide d'un accident nucléaire), Union européenne (décision du Conseil sur la notification rapide), accords bilatéraux et locaux.

1. Alert Phase

2. Dissemination of information

c) How would your national authorities organise feedback of information to the accident country on the radiological consequences of the accident in your country?

Germany

The existing reporting routes of the IAEA (EMERCON forms to be sent by fax), of the EU (PC-aided early warning information system) and the information channels connecting us to our bilateral partners (usually via fax or e-mail) are being used. The reports will in all cases be issued by the emergency center of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

Ireland

The Radiological Protection Institute of Ireland would send such information via the ECURIE system. (Representations would also be made at governmental level).

Japan

Basically, it seems unnecessary to organize feedback of such information. Since Japan is far from any potential accident country, feedback of such information in the event of an accident would not be so useful to the accident country in terms of disaster prevention. But if the situation requires, it will be done through diplomatic channels.

Korea

Central government.

Luxembourg

Liaisons téléphoniques et de courrier électronique dédiacés.

Spain

Par communication du Conseil de la sécurité nucléaire.

Switzerland

Via la CENAL.

United Kingdom

DEFRA would coordinate the response to any requests for radiological information utilising the information held on the RIMNET system.

d) Who is responsible for disseminating general information to the public¹¹ regarding:

d) *Quels sont les organismes responsables¹² de la diffusion des informations générales au public concernant :*

➤ **The event?**

➤ *L'événement ?*

- **The public authorities? At national or local level?**

- *Les pouvoirs publics ? Au niveau national ou local ?*

Austria

The dissemination of information is coordinated by Federal Chancellery, State Crisis Management(I/A/9).

Belgium

Une Unité d'information est créée par le Plan d'Urgence avec pour tâche de veiller à informer la population des mesures prises et à prendre. Les médias sont informés en permanence ainsi que l'AIEA, l'UE et les pays voisins.

Rien n'est réglementairement exigé dans le chef de l'exploitant vis-à-vis de l'information au public [voir cependant *infra* titre II, sous-titre 2, question a)].

Bulgaria

The CUAPEPP in co-ordination with the Ministry of Health and the State Agency for Civil Protection are responsible for disseminating general information to the public.

Canada

(i) *At the local level?*

This is addressed in provincial nuclear emergency plans, which deal with two levels of information to the public: general emergency information, and public direction information.

11. If this responsibility lies with different bodies depending on whether the accident occurs in your country or in a neighbouring country, please specify the competent bodies in each of these situations.

12. Si cette responsabilité incombe à des organismes différents selon que l'accident survient dans votre pays ou dans un pays voisin, veuillez préciser les organismes compétents dans chacune de ces situations.

General Emergency Information

In a nuclear emergency, a joint information centre for the province, the municipality, the federal government and the nuclear installation will be established and be responsible for providing information to the media and the public on the status of the emergency, and the measures being taken to deal with it.

The federal component of the Joint Information Centre would be expected to ensure coordination of any information being released by any federal agency.

Public Direction Information

The aim of public direction information is to communicate to the public affected by the emergency, direction and guidance on the measures required to ensure their safety and welfare. For example, the Province of Ontario Nuclear Emergency Plan (Provincial Master Plan) [Section 6.10] stipulates that public direction will be carried out by the Provincial Operations Centre through the broadcast media that normally covers the area likely to be affected.

(ii) At the national level?

For nuclear emergencies occurring in Canada, or in the United States adjacent to the Canada/US border, Section 5.3.10 of the Federal Nuclear Emergency Plan (FNEP) states, that all public information on the impacts of the event and protective actions within the province, will be provided by the provincial authorities and public information groups. Information on the site conditions will be issued by the affected facility or the Canadian Nuclear Safety Commission.

The provincial information centre will be the main source of public and media information on aspects of emergency operations and protective measures. Federal public affairs staff will be dispatched to the provincial information centre when the latter is activated. A designated federal officer will maintain liaison with the Public Affairs Group in the National Support Centre and will provide information to the media on federal operations and assistance in the province.

The Public Affairs Group (PAG) in the National Support Centre will prepare information products for the public and the media in close collaboration with the provincial authorities responsible for public information, and will implement or develop expedient arrangements with the media and/or other broadcasting systems for dissemination of these products. The PAG will also coordinate media briefings, conferences and major government announcements on the national and international impacts, and federal response with the provincial public information group.

For a nuclear emergency which occurs in the southern United States or in a foreign country, Section 5.5.4 of the Federal Nuclear Emergency Plan (FNEP) establishes that the authoritative source of public and media information will be established by the National Support Centre. The PAG will support a designated federal spokesperson by coordinating all public information and will establish and operate media monitoring, briefing and public inquiries centres. In these situations, the main focus of the federal response will be on the assessment of the radiological impact and protection of

Canadians living or travelling abroad near the event site, on the control of food and material imports into Canada from areas affected by the emergency, on the assessment of impacts in Canada, on coordination of assistance to the affected country, and on public information.

Czech Republic

Yes, information on the task they are responsible for.

Denmark

As national authority DEMA is responsible for all general information.

Finland

The authority in charge is responsible for general information about the accident and rescue activities. Authorities at governmental, provincial, and municipal level provide information about their own activities and given instructions regarding their own sphere of responsibility. STUK supplies information concerning the accident, the radiation situation, and the impact of the situation on public health and safety.

In a very serious situation, the information unit of the Council of State is responsible for the co-ordination of the information.

Finnish citizens abroad/foreign citizens in Finland get instructions and information about the situation through the embassy:

- Notifications and press releases are sent to the Ministry for Foreign Affairs.
- Ministry forwards the information to the Finnish embassies abroad and to the embassies of foreign countries in Finland.

France

Le principe général est que chacun communique à son niveau de compétence (voir décision n° 5401).

Ireland

The Radiological Protection Institute of Ireland (RPII) is responsible for providing technical information on the incident and advice on any countermeasures which have been approved for implementation.

The Emergency Response Coordination Committee has responsibility for co-ordinating the provision of information to the public issued by the RPII, government departments, national agencies, etc.

Japan

The national and local governments and the nuclear facility licensee.

Korea

Central Government, i.e. MOST (Ministry of Science and Technology).

Lithuania

All levels (state, regional and municipal) have emergency response plans. Plans have detail lists and schemes of interaction. Emergency response systems are similar at local, regional and state levels. Common decision making principles are applied for all three levels. Emergency management centres should be established in case of an accident. One of primary task of emergency management centres is disseminating public with information regarding emergency.

Luxembourg

The public authorities at national level.

Poland

The President of the NAEA is responsible for informing the general public and various authorities (of local and national level) on the radiological emergency, contamination levels, foreseen emergency scenario and impacts on people and environment. This body is also responsible for the dissemination of information to the international organizations and neighbouring countries.

Romania

The National Commission for Nuclear Activities Control.

Spain

Les pouvoirs publics aux niveaux national et local.

Sweden

The responsibility for providing information rests both with the County Administrations and the Swedish Radiation Protection Institute. The latter shall provide information to the Government, other authorities, the mass media and the public on the consequences from a radiation point of view of the incident and on the advice given and other measures undertaken. The Swedish Nuclear Power Inspectorate also plays an important role in respect of information to the public.

Switzerland

Le Conseil fédéral par la Chancellerie fédérale.

United Kingdom

All the above parties would have a role. Local residents and others in the area of a nuclear installation receive information on a regular basis on the action they should take in the event of an emergency. The law requiring this provision is now subsumed within the UK's Radiation (Emergency Preparedness and Public Information) Regulations' (REPPPIR), made on 20 September 2001. These Regulations are also for the provision of information to members of the public in the event of an emergency. Plans must be prepared for this purpose. The preparation of these plans is co-ordinated by the local authority. A Government Technical Adviser would be appointed to provide the public with an authoritative response on behalf of Government on the course of the emergency and measures to protect the public. Additionally, each agency with a role in the response would speak to the media about its own area of responsibility.

- **The operator?**
- *L'exploitant ?*

Bulgaria

The operator could only inform that an accident has occurred.

Czech Republic

Yes – information on the task they are responsible for.

France

A priori, non.

Romania

The operator shall inform the National Commission for Nuclear Activities Control.

Switzerland

Non. Voir *supra*.

- **Preventive measures taken?**
- *Les mesures préventives prises ?*

- **The public authorities? At national or local level?**
- *Les pouvoirs publics ? Au niveau national ou local ?*

Austria

Preventive measures are taken by the public authority.

Belgium, Canada

See *supra*.

Bulgaria

Public authorities take preventive measures and they are obliged to disseminate information on them.

Czech Republic

Yes – for the measures taken off-site.

Denmark

Decisions on preventive measures are all taken by the DEMA.

France

Oui, en application de la Directive 5401.

Germany

The competent authorities at federal and at länder level are responsible for disseminating information to the public, both regarding an event and the implementation of preventive measures. The major part of the responsibility lies with the federal authorities for events taking place abroad, while events occurring within Germany are subject to the responsibility of the emergency response authorities of the länder and of the federal level.

Japan

The national and local governments and nuclear facility licensees.

Korea

Local government and central government.

Luxembourg

The public authorities at national level.

Spain

Idem. Les pouvoirs publics aux niveaux national et local.

Switzerland

Le Conseil fédéral recommande ou ordonne les mesures et veille à les diffuser dans tout le pays.

United Kingdom

Local plans provide detail response arrangements in the event of an emergency. However, details on the precise nature of the response would be taken on the day by the Strategic Co-ordinating Group. This Group would be chaired by the police and would be located at the Local Emergency Centre, under the chairmanship of the police. The Government Technical Adviser would advise the Strategic Co-ordinating Group on measures to protect the public but in the final instance, the police would have executive authority for decision making.

The operator would retain responsibility to return the plant to a safe state.

I. Alert Phase

2. Dissemination of information

d) Who is responsible for disseminating general information to the public regarding preventive measures taken?

- **The operator?**
- *L'exploitant ?*

Bulgaria, Switzerland

Non.

Czech Republic

Yes – for the measures taken on-site.

France

A priori non.

e) **What means are used for such communication:**

e) *Quels sont les moyens de cette communication :*

- **at local and/or national level?**
- *Au niveau local et/ou national ?*

Austria

Radio/TV/Press releases/Public Information Services /Internet.

Belgium

Communiqués multimédias (au départ de l'Unité d'information précitée).

Bulgaria

TV, Radio, Press releases, Satellite Connection, Internet, Public Information Services of various competent authorities.

Canada

See answer to question a), sub-title 2, title I.

Czech Republic

First information radio and TV, further information press releases.

Denmark

General information to the public goes via national media and a website prepared for this matter. It's also possible to inform locally with help from the police.

Additionally, we operate with a telephone exchange where citizens can contact for further information.

Finland

Information is mainly conveyed through the media. Many authorities will also supply additional information via their Internet pages.

STUK supplies information concerning the accident, the radiation situation, and the impact of the situation on public health and safety via media, the Teletext pages of Finnish Broadcasting Company, and via Internet pages (www.stuk.fi).

France

Conventions avec les médias dans le cadre des plans particuliers d'intervention.

Communiqués de presse.

Application de la Directive européenne 89/618/Euratom concernant l'information de la population sur les mesures de protection sanitaire applicables et sur le comportement à adopter en cas d'urgence radiologique.

Germany

Press releases and press conferences, e-mail, Internet, IMIS, telephone.

Ireland

Information will be issued through the normal media channels (radio/TV, press, web sites, press conferences, etc.).

Japan

Telephone, fax, e-mail, etc.

Korea

Paging, radio, TV, web site.

Lithuania

Telephones, the telegraphs of subscribers, fax, the automated warning system “Signalas”, loudspeakers (at local level), radio and television.

Luxembourg

Sirènes, radio et TV.

Poland

The information issued by the President of the NAEA should be officially published in the Official Journal and should be available for the mass media. According to the Polish Press Law the media could not refuse publishing such information on the national authorities demand.

Spain

Tous les moyens d’information possibles : des communications entre les diverses autorités, les médias de masse et les annonces des autorités locales.

Switzerland

The National Emergency Operations Centre is responsible to co-ordinate the exchange of technical information among the national competent authorities. To this end NEOC is operating an Internet based network with restricted access to ensure a comprehensive and up-to-date description of the situation (Swiss Emergency Communications Network SECON). The different partners not only have read access. They have write access to provide information in their field of responsibility.

The public information is co-ordinated by the designated organisation according to the severity of the accident and the extent of the effects on the environment and the resulting consequences for the population.

The exchange of information between the local authorities is specific to each canton. The cantons have also access to the national emergency web site SECON. Some cantons have already the possibility to put their information directly into this network.

United Kingdom

The arrangements for communication are set out in emergency plans. Special and dedicated communication means have been established between the site operator and the Local Emergency Centre and DTI's Nuclear Emergency Briefing Room.

- **in neighbouring countries?**
- *dans les pays voisins ?*

Austria

It is up to each country to decide for itself.

Belgium

Voir *supra* ; outre les canaux traditionnels (e.g. Affaires Étrangères).

Bulgaria

It depends on the decision of each country.

Denmark

By fax to the national authorities.

France

En direction des pays voisins :

- Vecteurs : Ministère de l'Intérieur (COGIC, centre d'alerte), SGCISN (autorité compétente) par le moyen du Centre de transmission du Ministère des Affaires Étrangères (point de contact).
- Format : notifications.

Germany

Fax, Internet, telephone, PC solutions for special cases such as ECURIE.

I. Alert Phase

2. Dissemination of information

e) What means are used for such communication in neighbouring countries?

Japan

Telephone, fax, e-mail, etc.

Korea

Through IAEA and bi-international co-operation.

Lithuania

The nuclear or radiation offices of neighboring countries: Poland, Latvia, the Republic of Belarus, and the Kaliningrad district of Russia and countries with bilateral agreement shall be notified about an accident at the Ignalina NPP by VATESI through international communication means (telephone, telegraph, telefax, and fax).

Luxembourg

Lignes de communication spéciales.

Spain

Les communications du Conseil de la sécurité nucléaire.

Switzerland

Today Switzerland would send information via IAEA-EMERCON and ECURIE back to the accident country.

In the future, Switzerland will be using web technology with restricted access to make the information available to other countries.

United Kingdom

See *supra*.

3. Intervention of the nuclear operator's insurer¹³

3. Intervention de l'assureur de l'exploitant nucléaire¹⁴

Bulgaria

Bulgarian Nuclear Insurance Pool is established for the coverage of the liability of the operator, but an insurance policy is not signed yet. The applicable procedure requires an approval of the new insurance product by the State Agency on the Insurance Survey. The Council of Ministers must approve the contract too. So, the conclusion of an insurance contract is not achieved. The coverage of nuclear damage is State duty now, because the operator is a joint-stock company and the State owns 100% of its capital. Therefore there are no answers concerning the intervention of the operator's insurer now.

Denmark

Denmark has no electro-nuclear programme. The liability of Risoe National Laboratory is covered by the Danish state and no insurance policy has been taken out.

France

La compagnie d'assurance intervenant pour EDF (AXA) le fait en qualité de « prestataire de service », EDF indemnisant sur une base volontaire. En effet, EDF a mis en place une convention d'assistance d'indemnisation de première urgence en cas de menace grave et imminente, en dehors de toute obligation légale dans le cadre de la législation actuelle en phase d'alerte.

Lithuania

Ignalina NPP is not insured yet.

a) Who is responsible for informing the nuclear operator's insurer of the accident?

a) Qui est chargé d'informer l'assureur de l'exploitant nucléaire de la survenance de l'accident ?

Austria, Czech Republic, Luxembourg, Poland, Sweden, United Kingdom

The nuclear operator.

13. For the purposes of this question we presume that the accident occurred on the territory of your country.

14. Pour les besoins des questions suivantes, on suppose que l'accident est survenu sur le territoire de votre pays.

Belgium

L'exploitant-assuré ou l'Agence Fédérale de Contrôle Nucléaire.

Bulgaria

Principally the operator should be obliged to inform its insurer.

Canada

The Nuclear Insurance Association of Canada (NIAC), a pool of foreign and domestic insurance companies, is the only insurer authorized by the Minister of Natural Resources Canada to provide third-party nuclear insurance to Canadian nuclear operators under the NLA. The nuclear operator (the insured), his agent or broker, or the parent company would normally notify the Manager of NIAC or NIAC staff.

Finland

The Finnish Atomic Insurance Pool (FAIP) will be informed of a nuclear accident directly by the Finnish nuclear supervisory authority (STUK) via multifax and e-mail. Through these channels FAIP will also be continuously updated regarding development of accident.

France

a) Qui est chargé d'informer l'assureur « l'assureur en tant que simple prestataire de services » de l'exploitant nucléaire de la survenance de l'accident menace ?

Il n'y a pas d'accident à proprement parler, puisque nous sommes en phase d'alerte.

C'est l'exploitant nucléaire.

Germany

In the event of an accident the insuring party is obliged to inform the insurance carrier.

Italy

As soon as an accident occurs, the nuclear risk manager of the nuclear plant involved in the accident informs the competent authority in co-operation with the nuclear operator's insurer.

Japan

Our general conditions stipulates in Article 12 that the Applicant or Insured must inform the Companies in writing without delay of the date, time, and place of the occurrence of the Accident; the name(s) and address(es) of any victim(s), if identified; the particulars of the loss or damage sustained; the name(s) and address(es) of any available witness(es); and the details of any claim for damages that may have been made on the Insured.

Korea

The insured (operator).

Spain

Étant donné que l'assureur n'est pas mobilisé dès la phase d'alerte, il aura l'information qui sera reçue par la population.

Switzerland

The operator (according to the insurance policy within 24 hours of the accident).

b) Is the operator's insurer permanently on call?

b) L'assureur de l'exploitant est-il soumis à une astreinte permanente ?

Austria, Czech Republic, Korea

Yes.

Belgium

Oui. Une garde est organisée au niveau d'une Commission « Sinistres » des principaux assureurs (*) les réponses qui suivent ne concernent que ces derniers).

Canada

Yes. All operators are in possession of the work and home telephone numbers of the Nuclear Insurance Association of Canada (NIAC) contacts, based on a 24 hour / 7 day-a-week on-call protocol.

Finland

The managing director of the Finnish atomic insurance pool and the members of the emergency loss management team are on call.

France

b) L'assureur en tant que simple prestataire de services de l'exploitant est soumis à une astreinte permanente.

Germany

The insurer does not provide a competent permanent on-call service that will also work on weekends or at night.

Italy

The insurer is not required to be permanently on call.

Japan

The Japan Atomic Energy Insurance Pool (JAEIP) has prepared contingency plans against the nuclear accident, therefore we suppose the JAEIP can cope with this situation immediately.

Sweden

24 hours standby.

Switzerland

Non (not in the the case of a grave and imminent danger, although, should he be aware thereof, he would start preparing for claims regulation).

United Kingdom

No, only during an actual incident.

c) Is the operator's insurer mobilised as of the alert phase?

c) L'assureur de l'exploitant est-il mobilisé dès la phase d'alerte ?

Austria

The insurer has to be immediately informed by the operator.

Belgium, Czech Republic, Finland, Sweden, Switzerland

Yes.

Canada

At the alert phase, the Nuclear Insurance Association of Canada (NIAC) staff would be placed on standby.

France

c) L'« assureur en tant que simple prestataire de services » de l'exploitant est-il mobilisé dès la phase d'alerte ? Oui.

Germany

It depends on the exact circumstances.

Italy

After having received the official information, the nuclear operator's insurer is expected to adopt the procedure intended to prevent or minimise the impact of the damage.

Japan

As soon as the Japan Atomic Energy Insurance Pool (JAEIP) acquired the fact of the alert from the Applicant, the Insured or a news, they can cope with the alert situation according to their contingency plans.

Korea

No.

United Kingdom

Not necessarily.

d) How does this mobilisation take place?

d) *Quelle forme cette mobilisation prend-elle ?*

Austria

By usual and appropriate means of communication.

Belgium

Présence du Directeur et mobilisation des membres de la Commission « Sinistres » sur préavis de deux heures.

Canada

In the alert phase, senior managers, adjustors, and insurance pool participants would be notified of the prospect of imminent claims. Arrangements are in place to obtain immediate access to necessary funds. When mobilisation does take place, it would be in accordance with the procedures set out in the Nuclear Insurance Association of Canada (NIAC).

Czech Republic

By any means of communication available.

Finland

The Finnish Atomic Insurance Pool nuclear accident emergency organization will be alerted by mobile phone and e-mail. The loss management team will collect in the dedicated room in the pool office and immediately start assessing the accident, its repercussions on liability insurance and which further parts of the emergency organization need to be activated to handle claims filings etc. The team will also provide insurance information to the public media.

France

Le représentant du prestataire participe à la cellule de crise de la Préfecture. Ce prestataire met en alerte ses propres réseaux (directions régionales et agences locales) et ses moyens humains, aux niveaux national et international.

Germany

Telephone, e-mail, fax.

Italy

A permanent working group is set up, in which all persons with specific competences (nuclear engineers, physicians, insurers etc.) take part.

Japan

According to the contingency plans, the JAEIP set up a claim settlement task force (special committee for the accident) in their secretariat just after the alert, and call a claim handling committee to prepare for the claim.

Korea

By pre-established national emergency plan.

Sweden

Through an alarm-centre.

Switzerland

L'assureur s'organise.

United Kingdom

By telephone.

e) Are there any agents/contacts of the nuclear operator's insurer in the neighbouring countries affected by the accident?

e) Existe-t-il des correspondants de l'assureur de l'exploitant nucléaire dans les pays voisins affectés par l'accident ?

Belgium, Sweden, Switzerland

Yes.

Canada

In the event of an accident with possible effects on the US, contact would likely be made with American Nuclear Insurers (ANI), which is a co-insurer of the Canadian pool. Also, the Canadian Underwriters' Adjustment Bureau, the Nuclear Insurance Association of Canada (NIAC) claims service provider, has a strategic alliance with GAB Robins (an adjusting firm in the US and around the world) which has a notification network in the US.

Czech Republic

Yes – for countries where a nuclear insurance pool exists.

Finland

To the extent the Finnish Atomic Insurance Pool (FAIP) is the insurer the reinsuring pools in respective countries will respond in those countries. FAIP will keep these pools updated regarding accident developments.

France

e) Existe-t-il des correspondants de « l'assureur en tant que simple prestataire de services » de l'exploitant nucléaire dans les pays voisins affectés par l'accident ? Oui. s'agissant du Groupe AXA, il existe des correspondants dans les pays étrangers.

Germany

See answer in title II, sub-title 1, question a), 2nd bullet.

Italy

No agents/contacts in neighbouring countries affected by the accident are required as an obligation. However, the insurers' action is based on the mutual relations they maintain as a practice.

Japan

The Japan Atomic Energy Insurance Pool (JAEIP) has no existing affiliation with specific agents in the neighboring countries, however, in the event of an accident, the JAEIP could cooperate with such persons as foreign Pools, claim agents and the representatives, branches or subsidiaries of their member companies in the neighboring countries anytime.

I. Alert Phase

3. Intervention of the nuclear operator's insurer

e) Are there any agents/contacts of the nuclear operator's insurer in the neighbouring countries affected by the accident?

Korea

No.

Spain

En général oui.

United Kingdom

Contacts of nuclear insurance pool.

f) If so, who are they:

f) En cas de réponse positive, quels sont les correspondants de l'assureur de l'exploitant nucléaire :

Canada

See answer *supra*.

France

f) En cas de réponse positive, quels sont les correspondants de l'assureur « l'assureur en tant que simple prestataire de services » de l'exploitant nucléaire : Les services du pool national d'assurance nucléaire dans chaque pays.

Japan

As mentioned above, they could be foreign Pools(including their member companies), claim agents and the representatives, branches or subsidiaries of member companies of the Japan Atomic Energy Insurance Pool (JAEIP) in the neighboring countries.

Spain

D'autres assureurs ou les services du pool national d'assurance nucléaire.

- **a branch of the insurer?**
- *une succursale de l'assureur ?*

Belgium, Sweden

Non.

France

Une succursale de « l'assureur en tant que simple prestataire de services » ? Les entités du Groupe et les partenaires.

Switzerland

Yes, establishments of individual member-companies of the national nuclear insurance pool in neighbouring countries.

- **another insurer established in the country of the victim who is expressly designated by the operator's insurer to handle compensation claims?**
- *un autre assureur établi dans le pays de la victime qui est expressément mandaté par l'assureur de l'exploitant pour traiter les demandes en réparation ?*

Belgium, France, Korea, Sweden, Switzerland

No.

- **the services of the national nuclear insurance pool?**
- *les services du pool national d'assurance nucléaire ?*

Belgium, Sweden, Switzerland, United Kingdom

Yes.

Czech Republic

Yes – the national Nuclear Insurance Pool in the affected country.

Finland

Yes (and its member companies).

France

Oui, si le pool est partie prenante à la réassurance.

Korea

No.

Poland

There are no special rules regarding above issues.

II. ACCIDENT PHASE – Effective releases, presumed damage¹⁵

II. PHASE D'ACCIDENT – Rejets effectifs, dommages éventuels¹⁶

Bulgaria

See the remark under title I, sub-title 3.

France

Tout ce qui suit concerne le cas spécifique d'EDF dans le cadre de la convention EDF et EDF RAC Électricité-AXA CSA. Il s'agit des dispositions envisageables dans le cas de l'exercice INEX 2000 de la centrale nucléaire de EDF de Gravelines. Ces dispositions ne sont donc pas transposables aux autres exploitants nucléaires qui ont leur propre système de couverture et d'indemnisation.

Lithuania

Ignalina NPP is not insured yet.

15. We have presumed that the questions concerning preventive measures also apply to this phase. If different procedures are provided for, please indicate them.

16. On suppose que les questions concernant les mesures préventives s'appliquent également à cette phase. Si des procédures différentes sont prévues, veuillez les indiquer.

1. Intervention of the nuclear operator's insurer in the field¹⁷

1. Intervention sur le terrain de l'assureur de l'exploitant nucléaire¹⁸

France

Ici l'assureur accomplit pleinement son rôle en tant qu'assureur.

Poland

There are no special rules regarding issues below.

a) How does the insurer operate in the field:

a) Comment se concrétise l'intervention de l'assureur sur le terrain :

- **in the accident state?**
- *dans le pays de l'accident ?*

Austria

Through experts.

Belgium

Des inspecteurs « sinistres » membres du personnel des compagnies adhérentes au pool sont envoyés dans les zones d'évacuation et, si possible, sur le lieu du sinistre.

17. For the purposes of this question we presume that the accident occurred on the territory of your country.

18. Pour les besoins des questions suivantes, on suppose que l'accident est survenu sur le territoire de votre pays.

Canada

To deal with claims for such an accident, the Nuclear Insurance Association of Canada (NIAC) would immediately call in adjusters. These adjusters would set up at evacuee sites. They would focus on providing money to the evacuees that had no cash or credit cards. NIAC would draw on a claims account to make immediate payouts. Adjusters would interface with individuals in the claims process. Claims would be settled for evacuees on an individual basis.

Adjusters will set up a claims database that will contain necessary information that will serve to fulfil both the purposes of claims handling and dose exposure evaluation (i.e. a victim registry), under Parts I and II of the NLA.

Following the initial response to address victims' immediate needs, NIAC would respond to the claims submitted for bodily injury, property damage and economic loss arising from the incident. NIAC has suggested that its claims handling infrastructure could continue to exist after the insurance limit was exhausted, so that victims would see no transition from the insurer's claims handling process to the administrative claims handling system of the Nuclear Damage Claims Commission (NDCC) under Part II of the NLA. NIAC's view is that this would expedite claims settlement, which from claims handling experience, will lead to a lower overall claims bill.

Czech Republic

Collecting information related to the accident and to damaged parties. Mobilizing all members of Czech Nuclear Insurance Pool.

Denmark

As mentioned above Denmark has no electro-nuclear programme. The liability of Risoe National Laboratory is covered by the Danish state and no insurance policy has been taken out.

Finland

Through the Finnish Atomic Insurance Pool (FAIP) nuclear accident emergency organization [see title I, sub-title 3, question d)].

France

Mobilisation préparatoire, constitution d'équipes dans des localités sans risque et dans les points de regroupement. Objectif : recensement des personnes concernées, mise en place des registres.

Germany

In principle, all claims have to be made to the insured party, who will in turn refer to the insurer. The insurer can compensate directly, even though in terms of substantive law the insurer is not the party against whom claims may be asserted. In practical application, the insurer is likely to issue a press statement on the formal aspects of claiming compensation.

Japan

The Japan Atomic Energy Insurance Pool (JAEIP) set up the claim handling committee in their secretariat to assist the Insured and to do the settlement of loss, however, the insurance companies can not do intervention with victims directly in connection with the Japanese Attorneys-at-Law Act.

Korea

Investigation with re-insurer.

Sweden

Through a claims handling committee.

Switzerland

Through Pool Members' claims staff, possibly supplemented by specialised and independent loss adjusters.

United Kingdom

Through Pool members' claims personnel and independent loss adjusters.

- **in affected neighbouring states?**
- *dans les pays voisins affectés ?*

Belgium

Appel aux pools concernés (*).

Canada

No arrangements have been made at this time.

Czech Republic

Through an established contact.

Finland

To the extent FAIP is insurer through reinsuring pool on the basis of Standard Reinsurance Rules.

France

L'intervention est subordonnée à l'action des pouvoirs publics du pays concerné.

Germany

So far there are no agreements with insurers from abroad in case of cross-border damage.

Based on internal deliberations of the insurers in the context of the German nuclear operator insurance association, the German insurance companies base their activities on contractual claims settlement. That means that in the event of a nuclear accident (in Germany) the insurer abroad (a subsidiary of a German insurance company or an affiliated company, etc.) will not only be responsible for the ascertainment of the facts, but also for the adjustment of the claim according to German law. In countries other than Austria and Switzerland the language problem is considered to be more serious.

Japan

As mentioned above [title I, sub-title 3, questions e) and f)], the Japan Atomic Energy Insurance Pool (JAEIP) can cooperate with such as foreign Pools, claim agents and the representatives, branches or subsidiaries of member companies to assist the Insured and to settle the claims.

Sweden

The committee in co-operation with other Nuclear pools.

Switzerland

Same, depending on the situation supplemented by services rendered by the pools of the neighbouring countries at matter.

United Kingdom

Through Pool members' claims personnel and independent loss adjusters.

- b) What powers does the nuclear operator's insurer have in the event of an accident in order to ensure the protection of persons evacuated?**
- b) *Quelles sont les compétences de l'assureur de l'exploitant nucléaire en vue d'assurer la protection des personnes évacuées à la suite d'un accident nucléaire ?*

Austria, Belgium, Czech Republic, Finland, Korea, United Kingdom

None.

Canada

The Nuclear Insurance Association of Canada (NIAC) would cooperate with provincial authorities, and would not act on its own.

France

L'assureur n'a pas de compétence en matière de protection des personnes (article 1 de la Convention de réassurance).

Germany

In emergency situations the insurers may be expected primarily to pay out money; they are not obliged to carry out any other protective measures, and they would not have the necessary instruments for that anyway. First and foremost, the state would be in charge, due to its duty of care, and more specifically the emergency response authorities at länder level.

Japan

The Japan Atomic Energy Insurance Pool (JAEIP) have no specific power. However, our general conditions stipulate as follows:

Article 12. Obligations upon the Occurrence of an Accident

1. The Applicant or the Insured shall take the following measures when he has become aware of the occurrence of nuclear damage or non-nuclear damage due to an Accident:

...(2) Take all necessary steps to prevent the spread of, or to minimize, loss or damage as intended by the Laws and Ordinances.

II. Accident Phase – Effective releases, presumed damage

1. Intervention of the nuclear operator's insurer in the field

b) What powers does the nuclear operator's insurer have in the event of an accident in order to ensure the protection of persons evacuated?

Sweden

Only to indemnify costs.

Switzerland

Evacuation is arranged under the Zivilschutzorganisation on federal level, which obviates intervention of insurers.

c) Are emergency assistance payments provided for?

c) Est-il prévu des aides de premiers secours ?

Austria

They are not provided for by law, but can be granted on a voluntary basis.

Belgium

Oui, si nécessaire, le pool prévoit le versement d'acomptes (*).

Canada

Yes.

Under Part I of the NLA:

The insurance policy does not make reference to emergency assistance payments, but the Nuclear Insurance Association of Canada (NIAC) indicates that such payments would be made in the context of the "property damage" definition in the policy which includes "loss of use of property while evacuated or withdrawn from use because possibly so contaminated or because of imminent danger of such contamination". Such payments would be made in accordance with the Nuclear Insurance Association of Canada (NIAC) Claims Manual.

Under Part II of the NLA:

Section 30 of the NLA specifies that if the Government deems it is necessary, it may provide interim financial assistance to victims of the distress, suffering or hardship caused by a nuclear incident.

Czech Republic

Yes – but not by insurer (they are not provided for by law but can be granted on a voluntary basis).

Denmark

Will be decided by the Danish State in case of an accident at Risoe.

Finland

According to existing emergency plans for Finnish NPS emergency payments will not be necessary and are thus not provided for.

France

Oui. Indemnisation et assistance en appui des pouvoirs publics conformément aux dispositions de la convention EDF-EDF RAC Électricité-AXA CSA.

Germany

Emergency assistance payments can be provided by the insurer with respect to its own obligations. A requirement for receiving emergency assistance payments limited in amount from the insurer is that the person concerned has to furnish prima facie evidence of an acute financial need (for instance, in the event of an evacuation), with the reservation that the amount might be reclaimed. If applicable the sum will be set off against a possible overall claim of the claimant.

So far there are no provisions to this effect in the event of an accident abroad where payments would have to be made for an insurer from abroad. Reference must be made to Article 38(2) of the Atomic Energy Act. Based on this stipulation, after the Chernobyl accident the Federal Administrative Office was able to grant assistance quickly and unbureaucratically [see Article 38(4) of the Atomic Energy Act].

Japan

There is no system of such payments in Japan, therefore such payments will not be provided for.

Lithuania

Emergency assistance payments are not provided for by any laws.

Luxembourg

Oui, le cas échéant par l'État.

Switzerland

If this should be necessary under the circumstances of the accident: yes.

Korea, Sweden, United Kingdom

Yes.

d) If so, how are such payments made:

d) *Si oui, comment est organisé le versement des aides de premiers secours :*

Korea

By the nuclear operator's insurer.

- **in the accident country?**
- *dans le pays de l'accident ?*

Belgium

Versement contre quittance provisionnelle et après que la victime ait complété un document de déclaration de sinistre.

Canada

Under Part I of the NLA:

Once its claims process is implemented, the Nuclear Insurance Association of Canada (NIAC) would immediately call in adjusters to set up at evacuee sites. These adjusters would focus on providing money to evacuees who had no cash or credit cards. NIAC would draw on a claims account to make immediate payouts. Adjusters would interface with individuals in the claims process. Claims would be settled for evacuees on an individual basis.

Under Part II of the NLA:

Under Part II, if the Government deems it is necessary to provide interim financial assistance, it may make regulations providing for such payment by the Minister out of the Consolidated Revenue Fund. The Governor in Council may authorize the Nuclear Damage Claims Commission (NDCC) to administer the interim financial assistance.

France

Versement au plus près des populations : aux points de regroupement, ou auprès des pouvoirs publics, avec adaptation en fonction de la situation.

Germany

Payments are made in euros. The money is transferred through banks and in such a way that the claimants can quickly gain access to the indemnification. Compensation payments by the Federal Republic are paid out by the state treasury after the entitlement of the person asserting the claim has been confirmed on site by the respective länder-level administrative authority (through administrative assistance).

Korea

Over 50% of total insurance amount.

Sweden

Cash or other means of payments.

Switzerland

By claims personnel either via the public system (bank, post office, etc.) or – should the situation after the accident necessitate this, via cash payments, depending on the situation via a presence of insurers in the vicinity of the place of the accident.

United Kingdom

By claims personnel via public services. The exact mechanism would depend on circumstances and size of accident.

II. Accident Phase – Effective releases, presumed damage

1. Intervention of the nuclear operator's insurer in the field

d) If so, how are such payments made in the affected neighbouring countries?

- **in the affected neighbouring countries?**
- *dans les pays voisins affectés ?*

Belgium

Voir *supra*.

Canada

No arrangements have been made at this time.

France

L'intervention est subordonnée à l'action des pouvoirs publics du pays concerné.

Germany

The operator and the insurance company are responsible for disseminating information, as well as the Länder and the Government.

Korea

By private international law mechanism.

Luxembourg

L'État en décidera en cas de besoin.

Sweden

Similar, through the national pool.

Switzerland

Same, depending on the situation with assistance of the pool and/or offices of the national pool's Member-Companies offices in the neighbouring country concerned.

2. Dissemination of information to the public regarding the emergency assistance payments¹⁹

2. Diffusion des informations au public concernant les aides de premiers secours²⁰

Japan

There is no system of emergency assistance payments in Japan.

Lithuania

The order is not established.

Poland

See title I, sub-title 2.

Sweden

There are no legal provisions in force regarding this particular topic. It is assumed that it would be a mutual interest to the operator and the Government to provide accurate information to victims on their right to compensation.

a) Who is responsible for disseminating information to the public regarding the availability of such emergency payments?

a) Quels sont les organismes chargés de la diffusion des informations au public concernant les aides de premiers secours ?

Bulgaria

The competent public authorities would decide this.

19. Idem.

20. Idem.

II. Accident Phase – Effective releases, presumed damage

2. Dissemination of information to the public regarding the emergency assistance payments

a) Who is responsible for disseminating information to the public regarding the availability of such emergency payments in the accident country?

Denmark

DEMA will provide the initial dissemination of information.

Luxembourg

La cellule de décision transmet les informations à la cellule d'information qui informe le public et la presse. La radio et la TV seront mises à profit.

- **In the accident country?**
- *Dans le pays de l'accident ?*

Austria

This would be decided by the responsible authorities in cooperation with the operator and the insurer.

Belgium

Le pool (*) agit par communiqués de presse et site web.

Canada

Dissemination of information will be coordinated between the Nuclear Insurance Association of Canada (NIAC) or the the Nuclear Damage Claims Commission (NDCC), governments, and the nuclear operator. Natural Resources Canada (NRCan), which is responsible for the NLA, will collaborate with NIAC or the NDCC to ensure that all public information regarding emergency payments released by the Joint Information Centre [see title I, Alert Phase, sub-title 2, question d) i)] and the Public Affairs Group in the Federal Nuclear Emergency Plan (FNEP) is consistent with that of NIAC or the NDCC.

Czech Republic

Operator liable, under Act No. 18/1997 Coll.

France

Le ou les préfets, sur informations données par l'exploitant avec complément des assureurs pour ce qui les concerne.

II. Accident Phase – Effective releases, presumed damage

2. Dissemination of information to the public regarding the emergency assistance payments

a) Who is responsible for disseminating information to the public regarding the availability of such emergency payments in the accident country?

Germany

Press releases and press conferences, telephone, Internet, e-mail (if questions from the public come in).

Korea

Operator.

Sweden

The operator and the insurer.

Switzerland

Le Conseil fédéral.

United Kingdom

Local and national authorities, and operator.

- **In the affected neighbouring countries?**
- *Dans les pays voisins affectés ?*

Belgium

Voir *supra*.

Canada

If the US were an affected country, the dissemination of information would be conducted as in the answer to sub-title 2, question a) i), but would, in addition, follow the procedures outlined in the Canada-United States Joint Radiological Emergency Response Plan of July 27, 1996.

Czech Republic

Not defined as yet.

II. Accident Phase – Effective releases, presumed damage

2. Dissemination of information to the public regarding the emergency assistance payments

a) Who is responsible for disseminating information to the public regarding the availability of such emergency payments in the affected neighbouring countries?

France

Les autorités locales ou nationales compétentes.

Korea

By central Government.

Sweden

Through national pool or other agency.

Switzerland

La CENAL.

b) How is such information transmitted:

b) Quels sont les moyens de cette transmission :

- **at local and/or national level?**
- *au niveau local et/ou national ?*

Austria

Via the media.

Belgium

Voir titre I, sous-titre 2, question d) pour les pouvoirs publics.

Bulgaria

Via the TV, radio, press releases, Internet.

Canada

Information would be transmitted through all forms of media, such as radio, television, newspapers, leaflets, and perhaps the Internet.

Czech Republic

By all means available (press, radio, TV).

Denmark

Mainly through national media: TV, textTV and website.

France

Toutes possibilités, par tous moyens : médias, gendarmerie, autres services publics...

Germany

Press releases and press conferences, telephone, Internet, e-mail (if questions from the public come in).

Korea

By operator.

Luxembourg

La radio et la TV de même que la presse écrite et Internet.

Sweden

Through press releases, advertising, Internet.

Switzerland

Tous les moyens disponibles compte tenu des circonstances.

- **in neighbouring countries?**
- *dans les pays voisins ?*

Austria

Via the media.

Belgium, Sweden, Switzerland

See *supra*.

Bulgaria

Via the TV, radio, Internet.

Canada

In the US, information would be transmitted following the procedures outlined in the Canada-United States Radiological Emergency Response Plan of July 27, 1996.

Czech Republic

Not defined.

France

L'intervention est subordonnée à l'action des pouvoirs publics du pays concerné.

Korea

By central Government.

3. Nature and amount of the emergency assistance payment²¹

3. La nature et le montant de l'aide de premier secours²²

Austria

This would be decided case by case.

Bulgaria

It couldn't be decided in advance. The nature and amount of the emergency assistance payments would depend on the nature and gravity of the nuclear accident.

21. Idem.

22. Idem.

France

Conformément aux dispositions de la convention EDF-EDF RAC Électricité-AXA CSA.

Sweden

The Swedish Nuclear Third Party Liability Act does not contain any provisions on hardship payments. It should be noted that some of the expenses mentioned are covered through the national insurance scheme.

a) What types of damage or situation does this payment cover?

a) *Quels types de dommages ou de situation l'aide de premiers secours prend-elle en compte ?*

Denmark

As mentioned above it will in case of an accident at Risoe be decided by the Danish State whether emergency assistance payment is to be provided for.

Germany

The emergency assistance payments cover damage as defined in the Paris Convention and/or the Atomic Energy Act, i.e. damage to life or health or damage or loss of property that has been caused by a nuclear event. Whether a specific damage is recoverable or not must be decided on a case-by-case basis. Damage to the nuclear facility itself and damage to common property are excluded from damage liability.

Lithuania

Not decided.

United Kingdom

Essential living expenses.

➤ **medical expenses?**

➤ *dépenses médicales ?*

Belgium, Czech Republic, France, Germany, Korea, Poland, Sweden, Switzerland

Yes.

Canada

As medical expenses would be covered by provincial health care insurance regimes, it is unlikely that victims would require emergency assistance payments to cover such costs. Exceptions would be for those victims not covered by health insurance (e.g., foreign nationals), or for those victims not in possession of their health insurance cards when receiving medical treatment. As is the case for workers' compensation regimes, provincial legislation governing health care insurance contain provisions for recovery of costs where compensation has been paid for injuries resulting from the negligence or other wrongful act or omission of another person. However, it is unclear whether the province has any right of recourse against the operator.

Luxembourg

Oui, en cas de besoin.

- **costs in relation to transport, temporary accommodation and food for persons evacuated from the place of the accident?**
- *le coût de transport, d'hébergement temporaire et de nourriture des personnes qui ont été évacuées du lieu de l'accident ?*

Belgium, Germany, Korea, Poland, Sweden, Switzerland

Oui.

Canada

Yes. See answer to title I, Alert Phase, sub-title 1, question c).

Czech Republic

Yes (in the post-accident phase it will be repaid by operator liable).

France

Assureur ou pouvoir public, suivant la nature des besoins.

Luxembourg

Oui, en cas de besoin.

- **other**
- *autres*

Belgium

À examiner *in concreto*.

Italy

The nuclear operator is liable for any damage caused to third parties. The financial security or insurance is used to satisfy any submission of expenses encountered.

Luxembourg

Par exemple, assistance psychologique.

Sweden

Yes.

Switzerland

Essential living expenses.

b) Is this payment in the form of a lump sum?

b) *L'aide de premiers secours est-elle de nature forfaitaire ?*

Belgium, France, United Kingdom

Oui.

Canada

The Nuclear Insurance Association of Canada (NIAC) anticipates that immediate payments would be made in a predetermined lump sum, likely on a per diem basis; this would not preclude further compensation to a victim that is warranted on an individual basis.

Czech Republic

Not fully (partly in-kind).

Germany

In principle, the actual damage is to be outlined; lump sum payments should, however, not be excluded.

Luxembourg

Cela dépendra d'une situation donnée.

Poland

Generally not.

Sweden

Payments will be made for verified costs.

Switzerland

No (depends on needs of victims).

c) **What is the maximum amount for an emergency assistance payment?**

c) *Quel est le montant maximal de l'aide de premiers secours ?*

Belgium

À déterminer par la Commission « Sinistres » (*).

Canada

This is not established.

Czech Republic

Not defined (according to the situation and character of the needs of victims, case by case approach).

France

762 EUR/personne et 6 098 EUR/famille, à valoir sur l'indemnisation définitive.

Germany

The amount of the emergency assistance payment depends on the scale of the nuclear event and, thus, on the overall damage. There is no fixed maximum amount.

Italy

No maximum amount for emergency assistance is established, the insurance policy indicates the maximum amount available, as the case may be, for this kind of event. Where the amount is insufficient to meet the compensation necessary, the Paris and Brussels systems apply ["second and third tier(s)"].

Korea, Switzerland, United Kingdom

None.

Luxembourg

Cela dépendra d'une situation donnée.

Poland

None (indirectly it results from the limitation of the liability of the operator).

Sweden

Within the total sum insured.

d) Can this maximum amount be extended in certain exceptional circumstances?

d) Le montant maximal peut-il être étendu dans certaines circonstances exceptionnelles ?

Belgium, Czech Republic, Germany

See answer to question c) *supra*.

II. Accident Phase – Effective releases, presumed damage

3. Nature and amount of the emergency assistance payment

d) Can this maximum amount be extended in certain exceptional circumstances?

Canada

This is not established.

France, Korea

Non.

Luxembourg

Cela dépendra d'une situation donnée.

Switzerland

Yes.

e) Do there exist criteria upon which emergency assistance payments are granted?

e) Existe-t-il des critères d'attribution de l'aide de premiers secours ?

Germany

Obvious hardships are to be avoided by granting fast and unbureaucratic compensation.

Luxembourg

La décision sera prise après l'accident.

Switzerland, United Kingdom

No.

- **What formalities need to be performed to receive such aid (e.g. presentation of an identity card)?**
- *Quelles formalités doivent être accomplies pour recevoir cette aide ? (ex. présentation d'une pièce d'identité)*

Belgium

Déclaration de sinistre valablement introduite (*).

Canada

Under Part I of the NLA:

While there are a number of options available, no single criterion has yet been established by the insurers.

Under Part II of the NLA:

Government regulations would specify the persons or classes of persons to whom payments would be made, and fix or determine the amounts that are to be paid and the terms and conditions for the payments [Section 30 of NLA].

Czech Republic

Fill in the special form prepared for people in EPZ.

France

Éléments de preuve appréciés au cas par cas, selon l'état de détresse.

Germany

There are no strict formal criteria impeding a quick compensation for obvious hardships. It would be feasible to prepare special application forms (if appropriate, these can be distinguished according to the category the applicant falls under: private persons, special occupations such as farming, etc.) that would have to be filled in and returned to the relevant authority. This would also facilitate the electronic recording and processing of claims according to uniform principles.

II. Accident Phase – Effective releases, presumed damage

3. Nature and amount of the emergency assistance payment

e) Do there exist criteria upon which emergency assistance payments are granted? What formalities need to be performed to receive such aid (e.g. presentation of an identity card)?

Korea

None.

Luxembourg

La décision sera prise après l'accident.

Sweden

Yes, some sort of identification.

Switzerland

There should be a minimal indication of the possibility of a loss.

- **Are victims required to prove damage?**
- *Les victimes doivent-elles apporter la preuve d'un dommage ?*

Belgium

Question d'appréciation (*).

Canada

Under Part I of the NLA:

Victims would be required to provide some form of identification in order to substantiate their claim. Damages would relate to out-of-pocket expenses. To qualify, victims would need to prove that they were displaced and provide receipts for their expenses. Victims would then be reimbursed for their expenses on a per diem basis.

Under Part II of the NLA:

Government regulations would be made respecting the proving of injury or damage before a Commission [Section 28(e) of NLA].

Czech Republic

Not yet defined.

France

Une preuve formelle n'est pas exigée pour les premiers secours. Les victimes seront indemnisées sur la foi de leurs déclarations.

Germany

In principle, the claimant must prove that he or she has suffered damage and that this was caused by a certain nuclear event. The constituting evidence can be dispensed with in the case of emergency assistance payments. In such a case, it is sufficient to establish merely the probability of the alleged damage.

Italy

In the affirmative.

Korea

Yes.

Luxembourg

Les victimes doivent apporter certains éléments de preuve.

Sweden

Not necessarily but emergency cost may be refunded.

Switzerland

See *supra*.

United Kingdom

Not for emergency assistance, they merely have to prove need.

f) How is the emergency assistance payment made (in cash, etc.)?

f) Quelles sont les modalités de paiement de l'aide de premiers secours ?

Belgium

Chèque (*).

Canada

Emergency assistance payments would be made by cheque, and depending on certain circumstances, in cash [see answer to question d) in sub-title 1]. Payments by cheque would need the cooperation by banks to readily honour cheques, since victims might not be able to provide the customary identification required by a bank.

Czech Republic

In cash and as a free-of-charge services (accommodation, transport etc.).

France

Modalités de toute nature en fonction des circonstances : chèque, virement, lettre-mandat, espèces.

Germany

Payments will be made in cash or by check with the involvement of a bank.

Korea, United Kingdom

In cash.

Luxembourg

Les modalités seront arrêtées après l'accident.

Sweden

Yes, or directly to hotels, etc.

Switzerland

Cash would be normal.

g) Is an emergency claim account established in advance to facilitate treatment of requests for emergency payments?

g) Existe-t-il un compte désigné au préalable pour faire face à ces demandes d'aide de premiers secours (« emergency claim account ») ?

➤ **Yes / Oui**

Belgium

En principe celui de la compagnie du pool dont le membre du personnel accorde l'aide (*).

Canada

Yes [see answer to question d), sub-title 1, title II].

Korea, United Kingdom

Yes.

Sweden

Yes, in co-operation with a bank.

Switzerland

Depending on the extent of the accident, yes.

➤ **No / Non**

France, Germany, Luxembourg

Non.

II. Accident Phase – Effective releases, presumed damage

3. Nature and amount of the emergency assistance payment

g) Is an emergency claim account established in advance to facilitate treatment of requests for emergency payments?

Czech Republic

It is not arranged for.

Poland

There are no special rules regarding above issues.

III. POST-ACCIDENT PHASE

III. PHASE POST-ACCIDENTELLE

1. Dissemination of information to the public in the accident country²³

1. Diffusion de l'information au public dans le pays de l'accident²⁴

Bulgaria

Law does not expressly determine this matter. There is a draft of Crisis Regulation Act. The questions below are very useful as a basis for discussions concerning the inclusion of such rules in this act. The answers below are given in compliance with the general duties of the administration.

Japan

Since there are no provisions of law concerning dissemination of information below, there is no person who is legally responsible for it. But in general, the national government would disseminate such information as a part of administration of the nuclear third party liability regime.

Lithuania

The Information Centre under the Prime Minister Information Survey is responsible for dissemination of the information (Law on Public Information).

Sweden

As a general principle the public is expected to acquire knowledge about the legislation in force in Sweden, this of course also applies to the relevant laws in the field of nuclear energy. The relevant legislation does therefore not contain any provisions regarding information to the public on the contents of the laws. However, it is assumed that in case of a nuclear incident it will be necessary for

23. Idem.

24. Idem.

the State to provide some information as to the applicable rules on compensation for damage. Such information would probably not only be provided on request. The adoption of an information strategy with regard to provisions on compensation will probably have to be elaborated in conjunction with the relevant insurers. This applies not only to the obligations of the operator to pay compensation but also to the role of the State.

When it comes to the procedure for seeking compensation the operator and the insurer will of course be key players. However, the State has a role to play here as well. As for information on how to file an action with a court of law, each local court can provide guidance.

a) Who is responsible for disseminating information on:

a) *Qui est chargé de la diffusion de l'information sur :*

- **entitlements to compensation for possible damage?**
- *le droit à réparation des dommages éventuels ?*

Austria

The Federal Ministry of Justice.

Belgium

Non fixé réglementairement. Le pool (*) prévoit des communiqués de presse, un site web complet avec un questionnaire/une déclaration type à remplir par les victimes.

Bulgaria

CUAEPP, Ministry of Justice.

Canada

Dissemination of information to the public in the post-accident phase follows the same protocol as for emergency assistance payments as described in title II, Accident Phase, question 2.

Therefore the dissemination of information to the public regarding items (i) to (vi) below will require a coordinated effort between the Nuclear Insurance Association of Canada or the Nuclear Damage Claims Commission (NDCC), governments, and the nuclear operator. As stated in the introductory remarks to this questionnaire,²⁵ the Federal Nuclear Emergency Plan (FNEP) [Section 6.2] sets out that “federal involvement or support to provinces during the recovery phase will include implementation and administration of federal post-disaster financial assistance programs under

25. Ibid. note 10.

III. Post-Accident Phase

1. Dissemination of information to the public in the accident country

a) Who is responsible for disseminating information on entitlements to compensation for possible damage?

the NLA, and public information related to these activities.” Federal representatives on FNEP from NRCAN will collaborate with NIAC or the NDCC to ensure that all public information regarding nuclear third-party liability and compensation that is released by the Joint Information Centre [see title I, Alert Phase, sub-title 2, question d)(i)] and the Public Affairs Group in FNEP is consistent with that of NIAC or the NDCC.

Czech Republic

Operator liable, local authorities.

Denmark

This lies in case of an accident at Risø within the Danish State.

Finland

Authorities.

France

Les pouvoirs publics (Directive 2202) : le Préfet, ou un préfet coordonnateur selon le niveau de l'accident.

Dans le cadre de la convention EDF-EDF RAC Électricité-AXA CSA :

Au niveau local : En collaboration avec les cellules communication des Préfectures, une information est délivrée aux populations visant à expliciter les démarches à entreprendre afin de faciliter l'indemnisation. Il s'agit d'orienter les personnes concernées vers des lieux prédéterminés à proximité de leur domicile ou d'un point de regroupement, d'informer le public des lieux, horaires d'ouverture des bureaux, des numéros de téléphone dédiés.

Au niveau national : La communication à l'échelon national relève des pouvoirs publics et d'EDF.

Germany

The responsibility is divided between the länder and the federal government. Primarily, the emergency response authorities of the länder are in charge, but in case of cross-border events or accidents abroad, the federal government will also intervene. In case of a large-scale nuclear accident the BMU's human resources will not suffice, therefore, if need be, a central office that the citizens concerned can turn to will be set up and made public. Information on the various aspects mentioned above can be obtained from that central office.

III. Post-Accident Phase

1. Dissemination of information to the public in the accident country

a) Who is responsible for disseminating information on entitlements to compensation for possible damage?

Korea

Operator.

Luxembourg

Le Gouvernement (se placer comme s'il s'agissait de la diffusion d'informations dans le pays affecté).

Poland

The President of the NAEA.

Sweden

The national pool or other insurer.

Switzerland

Le Conseil fédéral, par la Chancellerie fédérale.

United Kingdom

National and local authorities, operator and insurer.

- **nuclear third-party liability regime in force?**
- *le régime RCN en vigueur ?*

Austria

The Federal Ministry of Justice.

Belgium

Sera assuré par les autorités selon des modalités non fixées à ce jour.

Bulgaria

Ministry of Justice.

III. Post-Accident Phase

1. Dissemination of information to the public in the accident country

a) Who is responsible for disseminating information on nuclear third-party liability regime in force?

Canada, Denmark, Germany, Poland, Switzerland

See *supra*.

Czech Republic

Operator liable (Act No. 18/1997 Coll., Vienna Convention on Civil Liability for Nuclear Damage).

Finland

Authorities.

France

Une circulaire sera immédiatement établie et diffusée par les pouvoirs publics.

Korea

Operator.

Luxembourg

Le Gouvernement (se placer comme s'il s'agissait de la diffusion d'informations dans le pays affecté).

Sweden

Sweden PC-country. Swedish Nuclear Liability Act (1968).

United Kingdom

National and local authorities, operator and insurer.

- **financial cover?**
- *la couverture financière ?*

Austria

The Federal Ministry of Justice.

III. Post-Accident Phase

1. Dissemination of information to the public in the accident country

a) Who is responsible for disseminating information on financial cover?

Belgium, Canada, Denmark, France, Poland, Switzerland

See *supra*.

Bulgaria

Council of Ministers, Ministry of Justice.

Czech Republic, Korea

Operator liable.

Finland

Authorities.

Luxembourg

Le Gouvernement (se placer comme s'il s'agissait de la diffusion d'informations dans le pays affecté).

United Kingdom

National and local authorities, operator and insurer.

- **identity of the insurer?**
- *l'identité de l'assureur ?*

Austria, Bulgaria, Korea

The operator.

Belgium, Canada, Denmark, Germany, Poland, Switzerland

See *supra*.

Czech Republic

Operator liable (Czech Nuclear Insurance Pool).

III. Post-Accident Phase

1. Dissemination of information to the public in the accident country

a) Who is responsible for disseminating information on identity of the insurer?

Finland

Authorities, operator, Finnish Atomic Insurance Pool (FAIP) (to the extent it is the insurer).

France

Sans objet : il n'est pas prévu de diffuser l'identité de l'assureur dans le grand public.

Le préfet ou l'assureur lui même.

Luxembourg

Le Gouvernement (se placer comme s'il s'agissait de la diffusion d'informations dans le pays affecté).

Sweden

Swedish Atomic Insurance Pool or other insurer.

United Kingdom

National and local authorities, operator and insurer.

➤ **role of the State?**

➤ *le rôle de l'État ?*

Austria

The Federal Ministry of Justice.

Belgium, Canada, Denmark, France, Germany, Poland, Switzerland

See *supra*.

Bulgaria

Ministry of Justice.

III. Post-Accident Phase

1. Dissemination of information to the public in the accident country

a) Who is responsible for disseminating information on role of the State?

Czech Republic

State authorities (Ministry of Interior, State Office for Nuclear Safety).

Finland

The State would take a central role in all aspects of dissemination of information in coordination with the insurer(s).

Korea

Operator.

Luxembourg

Coordinateur.

United Kingdom

National authority.

- **steps to be taken to bring a compensation claim, in particular the addresses where forms can be found and the time limit to submit a claim?**
- *les démarches à entreprendre pour présenter une demande en réparation, notamment les lieux où retirer les formulaires et les délais de soumission ?*

Austria

The Federal Ministry of Justice and the tribunals.

Belgium

Voir *supra* [pool (*) et pouvoirs publics].

Bulgaria

Ministry of Justice.

III. Post-Accident Phase

1. Dissemination of information to the public in the accident country

a) Who is responsible for disseminating information on steps to be taken to bring a compensation claim, in particular the addresses where forms can be found and the time limit to submit a claim?

Canada, Denmark, Germany, Poland, Switzerland

See *supra*.

Czech Republic

Operator liable and insurer according to general insurance conditions.

Finland

The Finnish Atomic Insurance Pool (FAIP) emergency loss management team will be responsible for the relevant post-accident insurance information to be distributed to the general public by the pool. Within two days of a nuclear accident FAIP's emergency loss management team will publish information regarding activated claims filing points [see *infra*, sub-title 3, question h)].

France

La circulaire précitée.

Luxembourg

Cela dépend de l'exploitant nucléaire du pays d'origine de l'accident.

Sweden, United Kingdom

The insurer.

b) Is the same information disseminated to victims in the neighbouring countries and within what time limit?

b) Les mêmes éléments d'informations sont-ils diffusés aux victimes dans les pays voisins et dans quel délai ?

Austria

Hardly relevant.

Belgium

Oui. Dans les mêmes délais.

III. Post-Accident Phase

1. Dissemination of information to the public in the accident country

b) Is the same information disseminated to victims in the neighbouring countries and within what time limit?

Bulgaria

Generally it is possible.

Canada

Yes. If the US were an affected country, the dissemination of information would be conducted as in the answer to question (a) under sub-title 1, but would, in addition, follow the procedures outlined in the Canada-United States Radiological Emergency Response Plan of July 27, 1996.

Czech Republic

On the basis of international treaties (Vienna Convention, Joint Protocol).

Finland

To the extent FAIP is the insurer the information is disseminated through the reinsuring pools in the neighbouring countries based on contractual Standard Reinsurance Rules. / The State would oversee that all potential victims in the neighbouring countries would forthwith receive all necessary information. This task would be coordinated with the insurer(s).

France

La diffusion de l'information se fera dans le cadre des dispositifs intergouvernementaux existants (par les pouvoirs publics).

Germany

The Contracting Parties of the Paris Convention and of the Brussels Supplementary Convention will receive information via the diplomatic channels. On reporting routes, see title I, sub-title 2, question c).

Japan

As in the case of domestic procedure, the government has no legal responsibility to disseminate such information. But, since there is no reason to prevent dissemination of such information in the case of transboundary damage, it could be said in general that the government would provide the victims in the neighbouring countries with the same kind of information. Of course, it should be noted that the kind of information provided may vary according to how the government of the neighbouring countries handle claims against transboundary damage.

III. Post-Accident Phase

1. Dissemination of information to the public in the accident country

b) Is the same information disseminated to victims in the neighbouring countries and within what time limit?

Poland

There are no special rules regarding this issue.

Sweden

Not prepared. There are no rules in place regarding information to victims abroad. The relevant information could be distributed through embassies, consulates and other representations. Co-operation between authorities in the installation state and the “victim state” would most likely be necessary.

Switzerland

Oui. Aussi rapidement que possible.

United Kingdom

Yes.

2. Actions taken by the insurer to make itself known²⁶

2. Actions de l'assureur pour se faire connaître²⁷

Bulgaria

See the remark on title I, sub-title 4.

Lithuania

Ignalina NPP is not ensured yet.

Poland

There are no special rules regarding this issue.

26. Idem.

27. Idem.

III. Post-Accident Phase

2. Actions taken by the insurer to make itself known

a) Does the insurer immediately identify itself to the national health authorities in the country/countries affected by the nuclear damage?

a) Does the insurer immediately identify itself to the national health authorities in the country/countries affected by the nuclear damage?

a) L'assureur se fait-il immédiatement connaître des autorités sanitaires nationales du ou des pays affectés par les dommages nucléaires ?

Austria

There is no legal obligation to do so, but it will undoubtedly be disclosed.

Belgium

Non (sans préjudice du droit d'action directe de l'assuré contre l'assureur et des informations évoquées plus haut).

Canada

No. Information on the insurer and the process for making claims will be made known to the public generally at the national, regional and local levels.

Czech Republic

No (the operator liable).

Finland

Yes – to the extent Finnish Atomic Insurance Pool (FAIP) is the insurer (in other countries through reinsuring pools).

France

C'est l'exploitant nucléaire qui est chargé de faire connaître l'assureur ou le prestataire en charge de l'indemnisation. La référence aux autorités sanitaires n'est pas pertinente.

Germany

The insurer will be announced immediately, if it is not already known.

Japan

At this point, it is not decided what measures to take to identify itself.

III. Post-Accident Phase

2. Actions taken by the insurer to make itself known

a) Does the insurer immediately identify itself to the national health authorities in the country/countries affected by the nuclear damage?

Korea

No.

Sweden

Yes, through press releases, etc.

Switzerland, United Kingdom

Yes.

b) Does the insurer provide all health establishments and hospitals which treated victims in the neighbouring countries with the details of its agent/contact point in each country concerned?

b) L'assureur fait-il connaître à tous les établissements de soins et à tous les hôpitaux qui ont reçu des victimes dans le ou les pays voisins, l'identité et l'adresse de son correspondant dans chaque pays concerné ?

Belgium

Non (voir *supra*).

Canada

No such arrangements have been made.

Czech Republic, Korea

No.

Finland, United Kingdom

Yes.

France

À ce jour, il n'existe pas de démarches transfrontalières de cette nature. Ces dernières semblent subordonnées à des décisions intergouvernementales.

III. Post-Accident Phase

2. Actions taken by the insurer to make itself known

b) Does the insurer provide all health establishments and hospitals which treated victims in the neighbouring countries with the details of its agent/contact point in each country concerned?

Germany

This is not foreseen, as the invoices go to the health insurance.

Japan

At this point, it is not decided what measures to take.

Switzerland

Yes, if requested.

- c) **Does the national insurer or its agent/contact point in the countries where the victims received treatment identify itself to these victims or their next of kin?**
- c) *L'assureur national ou son correspondant dans les pays où les victimes sont soignées se fait-il connaître de ces victimes ou de leurs ayants-droit ?*

Belgium

Non (voir *supra*).

Canada

No. Information on the insurer and the process for making claims will be made known to the public generally.

Czech Republic, Korea

No.

Finland

Yes – to the extent Finnish Atomic Insurance Pool (FAIP) is the insurer.

France

À ce jour, il n'existe pas de démarches transfrontalières de cette nature. Ces dernières semblent subordonnées à des décisions intergouvernementales.

III. Post-Accident Phase

2. Actions taken by the insurer to make itself known

c) Does the national insurer or its agent/contact point in the countries where the victims received treatment identify itself to these victims or their next of kin?

Germany

The insurer will be announced immediately. Apart from that, Article 5(3) of the Nuclear Financial Security Ordinance (AtDeckV) stipulates that potential claimants can demand the administrative authorities to inform them about the name and post address of the insurer or of the third party obliged to exemption.

Japan

At this point, it is not decided what measures to take.

Switzerland, United Kingdom

Yes.

3. Compensation claims handling^{28 29}

3. La gestion³⁰ des demandes d'indemnisation³¹

a) Who is responsible for handling these claims?

a) Qui est chargé de la gestion de ces demandes ?

Austria

The operator and the insurer; in case of litigation, the tribunals.

Belgium, Bulgaria

The operator.

28. Claims handling is understood to mean the registration and payment of compensation claims.

29. Furthermore, for the purposes of this question we presume that the accident occurred on the territory of your country.

30. Par gestion, on entend l'enregistrement, le traitement et le cas échéant la liquidation des demandes en réparation.

31. Pour les besoins des questions suivantes, on suppose que l'accident est survenu sur le territoire de votre pays.

Canada

Under Part I of the NLA:

The Nuclear Insurance Association of Canada (NIAC), under the terms of the insurance policy and the reinsurance agreement.

Under Part II of the NLA:

The Nuclear Damage Claims Commission (NDCC), under the terms of Part II of the NLA. However, NIAC may be retained to administer the claims handling process.

Czech Republic

The Czech Nuclear Insurance Pool, but up to limit insured only.

Denmark

The Danish State.

Finland

To the extent Finnish Atomic Insurance Pool (FAIP) is the insurer the pool's emergency organization for large nuclear liability claims will be activated. A management team and 20-50 specialist liability claims handlers from member will be responsible for claims handling. The number of claims handlers depends on the extent of the loss.

France

L'assureur ou le prestataire : AXA pour EDF.

Germany

The claims are settled by the party liable for paying: this is the insurer up to the sum insured, the owner of the nuclear installation or the parent company or if applicable the parent companies of the other owners of the nuclear installation as solidarity partners, and depending on the case it is the Government and the Länder within the framework of the state guarantee. Furthermore it is again the owners of the nuclear installation with their unlimited liability. The latter might have to depend on making use of a settling agent (law firm, certified accountants).

Japan

The Nuclear operator is basically responsible for handling claims, which means they have to negotiate with victims directly. The Japan Atomic Energy Insurance Pool (JAEIP) can only give advice to the Insured due to restriction of the Japanese Attorneys-at-Law Act.

Korea

Court is responsible with advisory committee established under the auspice of most.

Luxembourg

L'exploitant nucléaire ou son représentant (se placer comme s'il s'agissait de la gestion des demandes dans le pays affecté).

Poland

All claims should be raised before the competent court by victims and they are being recognised case by case. See also h) *infra*.

Sweden

The operator and the insurer.

Switzerland

L'assureur.

United Kingdom

Insurers' claims personnel and independent loss adjusters.

b) How are the inventory of the injuries, the identification of potential victims in the accident state and the neighbouring countries organised?

b) *Comment est organisé le recensement qualitatif et quantitatif des préjudices, l'identification des victimes potentielles dans le pays de l'accident et dans les pays voisins ?*

Austria

Through experts.

III. Post-Accident Phase

3. Compensation claims handling

b) How are the inventory of the injuries, the identification of potential victims in the accident state and the neighbouring countries organised?

Belgium

Une base de données établie par le pool collecte toutes les demandes et permet la répartition des dossiers entre les membres du pool pour traitement.

Bulgaria

Through experts, organised in national or local commissions.

Canada

Adjusters will set up a claims database that will contain necessary information that will serve to fulfil both the purposes of claims handling and dose exposure evaluation, under Parts I and II of the NLA [see title II, Accident phase, sub-title 1, question a)].

Czech Republic

State authorities.

Denmark

These procedures will in case of an accident at Risoe be decided by the Danish State.

Finland

After a nuclear accident Finnish Atomic Insurance Pool (FAIP) will set up a database for all claims filed in Finland and in neighbouring countries through the pooling system. The database will be maintained and updated through the necessary number of years.

France

Modalités classique de l'expertise assurantielle.

Germany

This is an important question in view of the distribution organisation [see also title III, sub-title 3, question i)] and affects the owner of the nuclear installation and the state: there is no clear answer to that as yet. There is, however, the need for local administrative authorities, Land authorities and the Government to coordinate and exchange information. In particular, information on the claims that have already been met by the insurer, the owner of the nuclear installation and the parent companies must be collected. Modern EDP technologies offer a basis for this type of work.

III. Post-Accident Phase

3. Compensation claims handling

b) How are the inventory of the injuries, the identification of potential victims in the accident state and the neighbouring countries organised?

Japan

This is stipulated in Article 12 of our general conditions as an obligation of the Applicant or the Insured.

Article 12. Obligations upon the Occurrence of an Accident

The Applicant or the Insured shall take the following measures when he has become aware of the occurrence of nuclear damage or non-nuclear damage due to an Accident:

- (1) Inform the Companies in writing without delay of the date, time, and place of the occurrence of the Accident; the name(s) and address(es) of any victim(s), if identified; the particulars of the loss or damage sustained; the name(s) and address(es) of any available witness(es); and the details of any claim for damages that may have been made on the Insured.

Luxembourg

Cela dépend de l'exploitant nucléaire (se placer comme s'il s'agissait de la gestion des demandes dans le pays affecté).

Sweden

By the claims handling organisation of the insurer.

Switzerland

Par la diffusion très large d'un questionnaire standard dont un exemplaire est reproduit à l'appendice 3 du présent questionnaire.

United Kingdom

Victims (or dependents) would need to register with insurers' Claims Bureaux.

- c) With whom do the claims handling costs lie?**
c) *Qui assume les coûts du traitement des demandes ?*

Austria

The operator or the insurer.

Belgium

L'assureur dans les limites fixées par arrêté royal.

Bulgaria

The claims handling costs lie with the operator.

Canada

Under Part I of the NLA:

The Nuclear Insurance Association of Canada (NIAC)'s claim handling costs for handling Coverage A claims would be included in the insurer's limit of liability. For Coverage B claims or upon exhaustion of the policy limit, the Minister would reimburse NIAC for claims-handling costs out of the Government of Canada's Consolidated Revenue Fund.

Under Part II of the NLA:

Claims handling costs would be the responsibility of the Government of Canada, and would be payable to the Nuclear Damage Claims Commission (NDCC).

If NIAC is retained to administer the claims handling process, this would be according to the terms of an agreement made between the NDCC and NIAC.

Czech Republic, Germany

See answer to question a) *supra*.

Denmark

The Danish State.

Finland

"Internal" claims handling costs will be born by the pool. External costs are covered by separate sum insured incorporated in the nuclear third party liability policy. This amount is in excess of the obligatory amount required by Finnish nuclear liability legislation and the Paris Convention. When the separate insurance amount is exhausted costs will be born by the Insured.

France

EDF, conformément aux dispositions de la convention EDF-EDF RAC Électricité-AXA CSA.

Japan

Basically the Nuclear operator bear such costs, but in relation to costs for the payment of the insurance, the insurance companies shall bear the claim handling costs such as a lawyer's fee, claim adjuster's fee and so on. Also, legal expenses which is stipulated in our general conditions are indemnifiable up to 1 billion JPY (equivalent to approximately 8 million USD.)

Article 3. Scope of Loss Covered

1. The scope of the loss to be indemnified by the Companies shall be limited to the following:

...(2) Legal expenses, attorney's fees, and other expenses necessary for arbitration, settlement, or mediation incurred by the Insured with the written consent of the Companies in connection with a litigation concerning the Insured's liability.

Korea

Person who is liable (operator).

Luxembourg

L'exploitant nucléaire (se placer comme s'il s'agissait de la gestion des demandes dans le pays affecté).

Sweden

With the insurer to a certain limit.

Switzerland

Les assureurs ou l'État selon le type de dommage.

United Kingdom

Insurers, to the extent of the insurance compensation limit; thereafter the Government.

III. Post-Accident Phase

3. Compensation claims handling

d) Is there a system providing for an “initial estimate” of the extent of the damage which would allow the operator, insurer, the competent court and the State establish a rough estimate of the damage?

d) Is there a system providing for an “initial estimate” of the extent of the damage which would allow the operator, insurer, the competent court and the State establish a rough estimate of the damage?

d) Existe-t-il un système de « première estimation » de l'étendue du dommage qui permettrait à l'exploitant, à l'assureur, à la juridiction compétente et à l'État de faire une estimation grossière des dommages ?

Austria, Bulgaria

Through experts.

Belgium

Oui.

Canada

Under Part I of the NLA:

The Nuclear Insurance Association of Canada (NIAC) does not specify such a system, but such a mechanism would be useful to the insurer for risk management analysis for pre- and post-loss estimates.

Under Part II of the NLA:

Such a system could be established by regulation under Section 28 of Part II of the NLA, and would be beneficial to the Nuclear Damage Claims Commission (NDCC) for estimating long-term requirements for compensation.

Czech Republic

No regulation exists as yet.

Finland

There is no operative system. The emergency loss management team of the Finish Atomic Insurance Pool (FAIP) will, together with the insurance supervisory authority and other appropriate authorities, make a first estimate as soon as feasible. This estimate is unlikely to be very accurate initially, but will be continuously updated as soon as more data become available.

III. Post-Accident Phase

3. Compensation claims handling

d) Is there a system providing for an “initial estimate” of the extent of the damage which would allow the operator, insurer, the competent court and the State establish a rough estimate of the damage?

France

En raison des quelques retours d'expériences, comme Tokai-mura, seules des estimations très larges peuvent servir d'éléments d'appréciation. Toutefois, il faut pouvoir envisager de mettre en place un fichier, qui devrait comprendre, pour un accident comme celui de Gravelines, de 250 à 300 000 entrées.

Germany

Such an estimate is made between the players mentioned in answer to question c) *supra*. See also answer to question k) *infra*.

Japan, Luxembourg, Sweden, United Kingdom

No.

Korea

Yes. Advisory Committee.

Switzerland

Oui. C'est l'un des buts du questionnaire mentionné ci-dessus à savoir une première estimation grossière du dommage ainsi que la conservation des preuves. Ce questionnaire permet d'écarter également dans un premier temps les demandes en réparation manifestement infondées.

e) How is the mobilisation of qualified experts (for example in the agricultural field) organised at national and international levels for the damage assessment?

e) Comment s'organise la mobilisation aux niveaux national et international des experts qualifiés (par exemple dans le domaine agricole) pour l'évaluation des dommages ?

Austria

It is organized via the insurer and/or the public authorities.

Belgium

En cours de mise au point.

III. Post-Accident Phase

3. Compensation claims handling

e) How is the mobilisation of qualified experts (for example in the agricultural field) organised at national and international levels for the damage assessment?

Bulgaria

Qualified experts are organised in special commissions at national or local level.

Canada

Through the Federal Nuclear Emergency Plan (FNEP) and the provincial nuclear emergency plan.

Czech Republic

Ad hoc on national level (courts and victims can use experts), on international level not known.

Denmark

This all lies within the Danish State.

Finland

Mobilization will be organized by the relevant authorities. The Finnish Atomic Insurance Pool (FAIP) will use its own experts as necessary.

France

Ces experts sont identifiés dans le cadre des plans particuliers d'intervention, qui renvoient aux chambres syndicales professionnelles.

Germany

Insurers, operators of nuclear installations, their parent companies and authorities have their separate ways for damage assessment. Insurers and nuclear operators resort to their own experts. Based on their legal mandate to supervise damage assessment, authorities can decide on the required measures and obtain advice from their own experts or expert bodies.

Japan

In the national level, Dispute Reconciliation Committee for Nuclear Damage Compensation (or "Reconciliation Committee") will be established to handle disputes concerning nuclear damage.

III. Post-Accident Phase

3. Compensation claims handling

e) How is the mobilisation of qualified experts (for example in the agricultural field) organised at national and international levels for the damage assessment?

Luxembourg

Les experts officiels luxembourgeois font les évaluations.

Sweden

Not preorganized.

Switzerland

Le Comité directeur radioactivité fait appel à de tels experts. Ils en font partie.

United Kingdom

By the insurers.

f) Who is responsible for determining the types of damage subject to compensation?

f) Qui est chargé de déterminer les types de dommages indemnissables ?

Austria

The types of damages are determined by the Austrian Atomic Liability Act 1999, the Austrian Civil Code and, if necessary, by the competent tribunals on the basis of this law.

Belgium

Le juge, en cas de contentieux suite aux propositions du pool.

Bulgaria

The types of damage are determined by the Obligations and Contracts Act and by the Vienna Convention on the Third-Party Liability for Nuclear Damage [Article I(1)(k)]. Bulgaria (State Gazette 64/1994) ratified the Vienna Convention.

Canada

Under Part I of the NLA:

The Nuclear Insurance Association of Canada (NIAC). If a claimant was unsatisfied with the insurer's decision, the court having jurisdiction would decide.

Under Part II of the NLA:

The Nuclear Damage Claims Commission (NDCC).

Czech Republic

Competent courts according to definition in Atomic Act.

Denmark

The Danish State and in the last resort the courts.

Finland

The claims handling management team of the Finnish Atomic Insurance Pool (FAIP), based on the Finnish nuclear liability law.

France

Il convient d'appliquer la Convention de Paris et sa loi de transposition.

Germany

In a specific case, the decisions are taken by the parties working on the settlement of the claim, i.e. the insurers, the operators and in case of litigation, the courts.

Japan

In the Japanese nuclear liability regime, all types of damage are subject to compensation as long as there is a reasonable relation of cause and effect between the damage and the function of radiation. Firstly, the insurance companies and/or the Dispute Reconciliation Committee for Nuclear Damage Compensation will decide whether a damage is subject to compensation depending on the past case. If the victims do not accept their decision, it is ultimately decided by the court.

Korea

By the court finally.

Luxembourg

Les tribunaux luxembourgeois.

Sweden

The insurer or finally the courts.

When it comes to which heads of damage that are compensated, the Nuclear Third Party Liability Act refers to “general principles of the law of torts”. Eventually it will be for the competent courts to decide whether in a particular case a certain loss constitutes an eligible claim. It is clear though that compensation will be provided for personal injury, both bodily and mental injury, damage to property, economic loss which is consequential to these personal injury and damage to property. In certain circumstances compensation can be awarded for pure economic loss too.

Switzerland

Les assureurs.

United Kingdom

The Courts.

g) What heads of damage are subject to compensation? Please specify if necessary.

g) Quels sont les types de dommages indemnissables ? Précisez le cas échéant.

Canada

The NLA heads of damage are defined as:

- personal injury, including the loss of life; and
- any loss of or damage to property, whether real or personal, including any damage arising out of or attributable to any loss or damage to that property.

The Nuclear Insurance Association of Canada (NIAC) insurance policy consists of two coverages: Coverage A and Coverage B. Coverage A includes only those risks that are accepted by the insurer, that is, bodily injury and property damage. Coverage B risks include personal injury that is not bodily, for example psychological injury, and damages arising from normal emissions. The Nuclear Insurance Association of Canada (NIAC) receives premiums from the operators for both coverages, however, premiums for Coverage B risks are remitted to the federal government which reinsures these risks under a Reinsurance Agreement between NIAC and the federal government. The federal government, through the Reinsurance Agreement, also pays the difference (supplementary insurance) between the basic insurance amount set by the CNSC and the full 75 million CAD of liability imposed by the NLA.

France

Conformément aux dispositions de la convention EDF-EDF RAC Électricité-AXA CSA, étant précisé que le financement par la deuxième ligne de 200 millions FRF visée dans le préambule intervient uniquement après épuisement de la première ligne par des préjudices indemnisables au seul titre des clauses et conditions du contrat d'assurance de première ligne.

Japan

Since the Japanese nuclear liability law does not limit compensation by the type of nuclear damage, all heads of damage are subject to compensation as long as there is a reasonable relation of cause and effect between the damage and the function of radiation.

Switzerland

Les dommages causés par les propriétés dangereuses, radioactives, toxiques, détonnantes ou autres propriétés des substances nucléaires. Le dommage, sauf le gain manqué, qui survient suite à des mesures ordonnées ou recommandées par les autorités.

- **damage to persons?**
- *dommages aux personnes ?*
 - **expenses related to the evacuation and accommodation of the public?**
 - *frais d'évacuation et d'hébergement des populations ?*

Korea, Switzerland

Oui/oui.

Austria, Belgium, Bulgaria, Finland, France, Germany, Luxembourg, Poland, United Kingdom

Yes.

Canada

Damage to persons: As defined above.

Expenses related to the evacuation and accommodation of the public: Yes. See answer to title I, Alert Phase, sub-title 1, question c).

III. Post-Accident Phase

3. Compensation claims handling

g) What heads of damage are subject to compensation? Damage to persons? Expenses related to the evacuation and accommodation of the public?

Denmark

According to the Damages Liability Act compensation will be paid for loss of income, medical expenses, and other loss stemming from the injury as well as compensation for pain and suffering. Where the injury has had permanent consequences, a compensation for permanent injury shall also be paid as well as compensation for the loss or reduction of the capacity for work.

Sweden

Personal injury covers medical expenses, loss of income, pain and suffering, disfigurement and other permanent disadvantage. If a person suffering injury has died, compensation can be awarded for funeral costs and, within reason, other costs incurred as a result of the death. Compensation can also be awarded in such a case for loss of maintenance payments.

- **lost income?**
- *les pertes de salaires en résultant ?*

Austria, Belgium, Czech Republic, Finland, France, Germany, Korea, Luxembourg, Poland, Sweden

Yes.

Bulgaria

Yes, in condition that the lost income is a direct and immediate consequence of the nuclear accident.

Canada

Yes. To the extent that it arises out of or is attributable to any loss or damage to a person's property. See answer to title I, Alert Phase, sub-title 1, question c).

Switzerland

Oui, selon les cas, car il s'agit d'un gain manqué.

- **expertise expenses, medical examination expenses?**
- *frais d'expertise, suivi médical ?*

III. Post-Accident Phase

3. Compensation claims handling

g) What heads of damage are subject to compensation? Expertise expenses, medical examinations expenses?

Austria, Belgium, Bulgaria, Czech Republic, Finland, France, Germany, Korea, Luxembourg, Poland, Sweden, Switzerland

Yes.

Canada

Yes, under Part I. These would form part of claims handling costs. See answer to title III, Post-Accident, sub-title 3, question c).

Under Part II of the NLA, these costs would fall under the Nuclear Damage Claims Commission (NDCC) expenses and would not be part of the operator's liability amount.

- **personal injuries?**
- *préjudices corporels ?*

Austria, Belgium, Bulgaria, Czech Republic, Finland, France, Germany, Korea, Luxembourg, Poland, Switzerland

Oui.

Canada

Coverage A would cover physical injury. Coverage B would cover non-physical injury (mental stress).

Sweden

Yes. Personal injury covers medical expenses, loss of income, pain and suffering, disfigurement and other permanent disadvantage. If a person suffering injury has died, compensation can be awarded for funeral costs and, within reason, other costs incurred as a result of the death. Compensation can also be awarded in such a case for loss of maintenance payments.

- **property damage? decontamination expenses?**
- *dommages aux biens ? frais de décontamination ?*

Austria, Belgium, Bulgaria, Czech Republic, Finland, France, Korea, Luxembourg, Poland, Sweden, Switzerland, United Kingdom

Yes.

Canada

Property damage: Yes

Decontamination expenses: Yes, radioactive contamination is considered property damage.

Denmark

Will be paid according to the common rules of Danish tort law.

Germany

According to national law of damages, in principle the same economic condition has to be restored that would have existed if the damaging event had never occurred. This so-called restitution in kind can also be accomplished by money transfer. Decontamination serves the purpose of restoring the original condition, the costs for this are liable to compensation.

- **damage to the environment?**
- *dommages à l'environnement ?*

Austria, Bulgaria, Korea, Luxembourg, Poland

Yes.

Belgium

Non pour l'environnement au sens strict (*res nullius*).

Canada

Currently, this head of damage is not explicitly defined under the definition of nuclear damage, and would fall to the court having jurisdiction to decide.

Czech Republic

Possible.

Denmark

Reasonable expenses to prevention of damage or to re-establishment of the environment could be paid depending on the circumstances.

Finland

No.

France

Non, dans le cadre législatif actuel.

Germany

A duty to compensate may be considered if the environmental assets are factually subject to the property concept and if their injury means a financial loss to the proprietor.

Switzerland

Pas définis en droit suisse. Inclus dans le dommage aux biens. According to civil law possession has to be proven.

Sweden

Yes, regarded as property damage. Damage to the environment *per se* is not compensated. It is not entirely clear whether claims for compensation for measures of reinstatement of impaired environment will be eligible for compensation. The same doubt applies to preventive measures.

- **non-material damage (e.g. loss of reputation, image, etc.)?**
- *dommages immatériels (préjudice d'image, par exemple) ?*

Belgium, Czech Republic, Finland, Poland

No.

Austria

Physical and mental pain are the only non-material damages which can be compensated under Austrian law in the case of a nuclear accident.

Bulgaria

Physical and mental pain are the only non-material damages which are subject to compensation under Bulgarian law. The loss of reputation, image etc. of legal entities cannot be compensated as non-material damage.

Canada

Currently, this head of damage is not explicitly defined under the definition of nuclear damage, and would fall to the court having jurisdiction to decide.

Denmark

According to the Damages Liability Act compensation for non-material damage to persons will be paid as compensation for pain and suffering and as compensation for permanent injury. As a starting point no compensation for loss of reputation etc. is available.

France

Selon la nature même de la réclamation (par exemple : Pertes d'Images) et du préjudice, il sera privilégié la mise en place d'expertises.

Germany

The Paris Convention leaves out non-material damage. According to domestic law [Article 29(2) of the Atomic Energy Act], these have to be compensated for only if the damage was caused by negligence. However, this applies only in case of physical or health injury (especially damages for pain and suffering). It should not be possible to claim compensation for damaging of the image. It is foreseen to amend Article 29(2) of the Atomic Energy Act and Article 253 of the German Civil Code, according to which injury to the body, health, freedom or one's sexual self-determination will allow for claiming equitable compensation also for non-material damage, if the injury was done intentionally or, considering its nature and duration, the damage done is not unsubstantial (draft for the second law to amend stipulations under the law of damages).

Korea

Maybe no.

Luxembourg

Oui.

Sweden

Pure direct economic loss. Non-pecuniary losses (see above regarding pain and suffering and disfigurement) are not compensated unless provided for through legislation. Loss of reputation and image would not be compensated under Swedish tort law.

Switzerland

Basically not, would depend on a court verdict in individual cases.

- **preventive measures?**
- *mesures préventives ?*

Austria, Bulgaria, Czech Republic, Korea, Luxembourg, Poland, Sweden

Yes.

Belgium

Oui (voir *supra*).

Canada

Yes, to the extent indicated in title I, Alert Phase, sub-title 1, question c).

Denmark

Will be paid according to the common rules of Danish tort law.

Finland

Yes, if a nuclear accident in accordance with the Finnish nuclear liability law has occurred and the measures have been ordered by the appropriate authorities.

France

La notion de mesures préventives est sans objet dans ce chapitre qui ne concerne que la phase post accidentelle, il convient de se reporter au premier chapitre « phase d'alerte ».

Germany

Neither the Paris Convention nor the Atomic Energy Act explicitly state stipulations on compensating costs for preventing damage. However, the concept of “damage” also comprises financial expenditures to reduce damage, including evacuation costs. According to the revised Paris Convention [see Article 1(a)(ix) of the amending Protocol], this interpretation of the concept of damage will be dealt with positively.

In addition, there is the legal institute of *negotiorum gestio* under public law, according to which there is a rate to compensate the costs of preventive measures that are usually carried out by the authorities. As the Paris Convention states in Article 10(c), the financial security reserves must not be used for that purpose.

Switzerland

Oui, except for loss of profits.

h) What is the procedure for compensation claims?

h) Quelle est la procédure de demande d’indemnisation ?

Austria

Before the tribunal, the Code of civil procedure is applicable for such compensation claims, too.

Belgium

Un questionnaire détaillé (disponible sur le web) doit être rempli et envoyé à l’assureur (*).

Bulgaria

The procedure has its development before the court. The Civil Procedure Code is applicable for such compensation. The Act on the use of atomic energy for peaceful purposes provides that the procedure will be tax-free for Bulgarian citizens and for foreign citizens too, at reciprocity.

Canada

Under the current Act and the Memorandum of Agreement with the Nuclear Insurance Association of Canada (the Reinsurance Agreement), the scheme is generally as follows:

After a nuclear accident, the Nuclear Insurance Association of Canada (NIAC) would investigate and defend or settle all claims arising under the operator's insurance policy. Many of the claims would be settled out of court. Others would enter into the judicial system.

In the event that claims would appear to exceed the 75 million CAD liability limit or if it was considered in the public interest to do so, Part II of the NLA would be proclaimed and the Nuclear Damage Claims Commission (NDCC) would be established. The NDCC would take over from the courts. In accordance with any regulations made by Cabinet, the NDCC would have exclusive jurisdiction to hear and determine claims brought before it and to decide the amount of compensation to be awarded in respect of those claims. The NDCC would have the authority to make rules, subject to Cabinet approval, for hearing and deciding claims.

After making a decision on a claim, the NDCC would issue an order to the Minister who then pays the order out of the Consolidate Revenue Fund.

Immediately After the Accident:

- Insurers are mobilized:
 - to establish a centre for (i) the registration of potential victims and (ii) the payment of interim compensation for preventive measures;
 - to provide public information on how claims for damage will be handled.
- The Minister makes a decision on the need to establish the Nuclear Damage Claims Commission (NDCC).

After A Decision not to Establish the NDCC – a small accident:

Insurers deal with all compensation claims:

- insurers assess and decide on the payment of claims;
- payments will be made according to pre-determined criteria including the victim registration;
- for claimants who take their claims to court, insurers assess and defend or pay the claim;
- the provincial court would hear any claim brought to it;
- decisions of the court would be subject to a provincial appeal court.

After A Decision to Establish the NDCC – a large accident:

- The Minister names the members of the NDCC.
- The NDCC is mobilized to:
 - hire staff;
 - establish rules of operation;
 - apportion a fund for latent illnesses;
 - establish a centre for (i) the compensation of victims and (ii) the hearing of claims;
 - provide public information on how claims for damage will be handled;
 - hear claims that are brought to it on appeal from its staff.
- Insurers will be hired as staff of the NDCC to assess and make decisions on the payment of claims according to pre-determined criteria.
- The Federal Court would hear appeals from the NDCC based on judicial review.

Czech Republic

Insurance conditions and announcement of operator liable.

Denmark

The claims must be sent to the Danish State and will in the last resort be decided by the courts.

Finland

Claims should be filed in any of the insurance offices that the Finnish Atomic Insurance Pool (FAIP) loss management team has activated. The FAIP has a pre-selected list of 35 insurance offices from which the offices to be activated can be selected, based on location and extent of the nuclear accident. Within two days of the accident the FAIP management team will publish names and contact information in respect of the activated insurance offices using public information channels.

France

Déclaration de sinistre auprès des représentants de l'assureur de l'exploitant.

Germany

Claims are first submitted to the operator of the nuclear installation or the insurer. The operator of the installation is always the party against whom claims may be asserted, even though the claim is handed on to the insurer that has obliged itself to settle the claims brought forward against the insured party. If this commitment is dishonored, there is legal recourse.

Japan

Firstly, the victim will negotiate directly with the nuclear operator. In cases where this direct negotiation does not settle the dispute, the claim will be submitted to the Dispute Reconciliation Committee for Nuclear Damage Compensation pursuant to the Law on Compensation for Nuclear Damage or to the court pursuant to the Civil Procedure Law.

Korea

Notification by victims – investigation – decision of payment.

Luxembourg

Elle dépend de l'exploitant nucléaire ou de son représentant; en l'absence d'arrangement à l'amiable, il y a passage aux tribunaux luxembourgeois.

Poland

The claims should be recognised in the usual civil procedure. However, in the case when the claims for the nuclear damage to the property or the environment exceed the amount of the limitation of the liability the operator may establish a limited liability fund what means the special procedure provided by the liability regime of the Polish Sea Code. This procedure is based on the rules of the proportional coverage of the damages. The competent court for establishing this procedure is the District Court in Warsaw.

Sweden

Turning to the procedure for compensation, the victim/claimant, has to present his claim to the operator, or the operator's insurer. He or she could of course file an action with a court of law immediately. If the operator or his insurer refuses to pay compensation or assesses the damage at a lower amount than the claimant has claimed for, he or she can always file an action with the competent court of law.

Switzerland

Action directe possible contre l'assureur. Le formulaire *ad hoc*, une fois rempli, permettra à l'assureur de décider des démarches à entreprendre telles que : avance d'une partie du montant du dommage, examen approfondi et nouvelle estimation, versement d'une rente ou d'un capital, etc.

United Kingdom

Through the Courts.

- i) **What is the applicable time limitation for the introduction of claims?**
- i) *Quel est le délai de prescription pour introduire des demandes ?*

Austria

Here the relevant provision of the Austrian Atomic Liability Act 1999 (unofficial translation):

Limitation Period

Section 20

Claims for compensation under this Federal Act which are not brought within three years from the date on which the person entitled to compensation learned of the damage and the identity of the person liable therefore shall be time-barred; however, irrespective of such a knowledge or if the damage was caused by one or more criminally punishable acts which could only have been intentionally committed and which carry penalties of more than one year's imprisonment the limitation period shall be thirty years from the date on which the damage was incurred. With regard to the recovery of costs incurred for preventive measures, these terms start to run at the earliest on the date on which the person who suffered damage incurred such costs. Otherwise, limitation periods are to be governed by the ABGB.³²

Belgium

Dix ans matériel / Trente ans corporel.

Bulgaria

There is a prescription of five years for claims for compensation. The initial date is that on which the damaged person learned or could learn of the damage and the identity of the person liable. This time limitation cannot be longer than the time limitation, foreseen in Vienna Convention.

32. Austrian Civil Code.

Canada

The applicable time limitations for the introduction of claims are:

- three years from the earliest date on which the person making the claim had knowledge or ought reasonably to have had knowledge of the injury or damage, and
- ten years from the date the cause of action arose.

Under Section 28(f) of Part II, the Government can make regulations for extending these limitation periods.

Czech Republic

Defined by law (three and ten years).

Denmark

As regards claims against the operator the Act on Nuclear Liability establishes a limitation period of three years from the time when the injured person was able to claim for compensation. In addition there is an absolute limitation period of ten years from the time of the accident.

Finland

Claims must be filed within three years from the date when the victim became aware of or should reasonably have known of the damage but in no event filed later than ten years from the date of a nuclear accident.

France

Dix ans à partir de l'accident pour tous les dommages, et trois ans à partir de l'identification du dommage (article 15 de la Loi de 1968).

Germany

Damage claims are subject to a limitation period of three years, starting on the day the claimant has knowledge or should have had knowledge of the damage and of the party liable to compensation within a period of thirty years from the damaging event onward.

Notwithstanding the legal statute of limitations of three and thirty years, respectively, for damage claims, the insurance only covers third party liability for damage reported in writing to the insurer no later than ten years after the nuclear event [Article 3(5) of the nuclear third party liability insurance policy conditions].

Japan

The time limitation for the introduction of claims is 20 years.

Korea

Three years from knowledge of the damage and person liable within ten years from the accident (provided that in case of personal damage, 30 years).

Luxembourg

Délai de droit commun : 30 ans.

Poland

Personal damages claims are not subject to the prescription; other claims are prescribed after three years from the date the victim learned or should have learned of the damage and liable person and ten years from the nuclear accident date.

Sweden

Ten years. The claimant has to notify the operator of the claim within three years from the date at which he or she has knowledge or ought reasonable to have known of the damage and the operator liable. The claimant must however in any case bring an action against the operator within ten years from the date of the nuclear incident. If the nuclear damage has not manifested itself until after the rights of compensation against the operator have been extinguished but within thirty years after the date of the incident, compensation for such damage will be paid by the State.

Switzerland

Trois ans dès la connaissance du dommage et de la personne responsable.

United Kingdom

Three years after knowledge of damage.

j) How is compensation paid?

j) Quelles sont les modalités pratiques d'indemnisation ?

Austria, Bulgaria

Either in rem or in money.

Czech Republic, Korea, United Kingdom

In cash.

Belgium

Selon les entreprises du pool.

Canada

See answer to question h) in title III, sub-title 3.

France

En application des prescriptions légales les indemnisations seront versées aux victimes contre quittance, il sera recherché la mise en place d'un « guichet unique ». Une coordination sera assurée entre l'assureur et l'État. Toute demande d'indemnisation doit également être transmise au Trésor (article 6 de la Loi).

Germany

By money transfer.

Luxembourg

Arrangement à l'amiable ou passage par les jugements des tribunaux luxembourgeois, exécutoires sur la base de la Convention de Bruxelles de 1968.

Switzerland

Voir *supra*.

Denmark

By the Danish State according to the common rules of Danish tort law.

Finland

Compensation is paid to the claimant's bank account.

Japan

There is no special procedure for payment of compensation, but in any case, it is paid by the nuclear operator.

Sweden

Treated individually from case to case. The compensation is awarded as a lump sum. In cases of compensation for future loss of income compensation can be awarded as a life annuity.

k) Is there a priority system in the administration of claims?

k) Existe-t-il un système de priorité dans le traitement des demandes ?

Austria, Belgium, Czech Republic, Finland, Korea, Luxembourg, Switzerland, United Kingdom

No.

Bulgaria

Yes. The compensations for death or corporal injury have priority.

Canada

There is a provision for establishing a priority system for the settlement of claims under Section 28c of Part II of the NLA. Any priority system would be set in a regulation made by Cabinet.

Denmark

According to the Act on Nuclear Liability the claims will equally be reduced if the total damage exceeds the maximum liability amounts.

France

Oui, les dommages corporels sont prioritaires (article 13 de la Loi française).

Germany

There is no legal ex-ante provision for the distribution procedure. Rules for the administration of claims in major damage scenarios have to be developed on the basis of the specific requirements of the concrete damage. For this reason Article 35 of the Atomic Energy Act stipulates that a special law has to govern the distribution of available funds in the context of fulfilling damage liabilities as well as the procedures to be observed in this process. Until such a law is adopted – maybe to fend off threatening damage – a legal ordinance will have to govern these aspects, if it can be expected that the legal third party liability will exceed the means available for such claim settlement.

It is conceivable to initiate a distribution procedure comparable to the distribution of assets of a bankrupt debtor, where liability claims will be cut or partially privileged (for instance in cases of physical damage). In practical application much will depend on whether the claims filed refer to unproblematic cases, or whether a legal dispute is involved.

Japan

There is no such priority system, for in the Japanese nuclear liability system, liability is unlimited.

Sweden

No. All claims are treated equally.

III. Post-Accident Phase

3. Compensation claims handling

l) In France, if it appears that the compensation amounts available are likely to be insufficient, a decree adopted in the Council of Ministers and published not later than 6 months after the date of the accident shall recognise this exceptional situation and specify the manner in which the available sums are to be disbursed equitably¹. Does such a system exist in your country?

l) **In France, if it appears that the compensation amounts available are likely to be insufficient, a decree adopted in the Council of Ministers and published not later than 6 months after the date of the accident shall recognise this exceptional situation and specify the manner in which the available sums are to be disbursed equitably.³³ Does such a system exist in your country?**

l) *En France, il est prévu que s'il apparaît que les montants d'indemnisation disponibles risquent d'être insuffisants, un décret pris en Conseil des Ministres et publié dans un délai de six mois après l'accident, constate cette situation exceptionnelle et fixe les modalités de répartition équitable des fonds³⁴. Un tel système est-il prévu dans votre pays ?*

Austria, Bulgaria, Czech Republic, Luxembourg

No.

Belgium

Le Roi dispose de la faculté d'arrêter des mesures similaires.

Canada

Parliament could authorize additional funds under Section 31 of Part II of the NLA, and through regulations under Section 28, provide for the equitable distribution of funds.

Finland

If it becomes apparent that compensation amounts available are likely to be insufficient it is the duty of the Finnish Insurance supervisory authority to decide to which extent payments can be made and to work out a formula for payments.

Germany

See answer *supra* (question k).

33. Section 13 of the French Law.

34. Article 13 de la Loi française.

III. Post-Accident Phase

3. Compensation claims handling

l) In France, if it appears that the compensation amounts available are likely to be insufficient, a decree adopted in the Council of Ministers and published not later than 6 months after the date of the accident shall recognise this exceptional situation and specify the manner in which the available sums are to be disbursed equitably¹. Does such a system exist in your country?

Japan

Since liability is unlimited in the Japanese nuclear liability system, basically all damage is expected to be compensated. Therefore, no such system exists.

Korea

No. There may be a pro ration.

Sweden

Yes, indemnity will be proportionalized if funds are insufficient. If the maximum amount of liability applicable is not sufficient to satisfy in full the claims of those who are entitled to compensation, their compensation shall be pro rated. If, following a nuclear incident, there are reasons to believe that a pro rating will prove necessary, the Government, or an authority appointed by it, may decide that until further notice the compensation shall be reduced by such percentage of the full amount of compensation as shall be determined by the Government or competent authority.

Switzerland

Oui. Il porte le nom de « règlement des grands sinistres ».

United Kingdom

Parliament has the power to vote extra funds.

m) If not, how is compensation distributed if the financial security available is insufficient?

m) Si non, comment s'effectue la distribution des montants de réparation en cas de dépassement de la limite de la garantie financière ?

Austria

Proportionally.

Bulgaria

Ten percent of the amount at which is limited the responsibility of the operator is saved for compensation of claims, brought one year after the nuclear accident. There are no other procedures on the distribution.

Germany

See answer *supra* (question k).

Japan

Since liability is unlimited in the Japanese nuclear liability system, basically all damage is expected to be compensated.

Korea

Operator should pay the shortage.

Luxembourg

La responsabilité n'est pas limitée.

Poland

See question h) *supra*.

Switzerland

Par le biais de dividendes, si les montants à disposition ne suffisent pas.

4. Medium and long term administration of the compensation claims by the insurer³⁵

4. Le suivi des dossiers d'indemnisation à moyen et à long terme à la charge de l'assureur³⁶

Bulgaria

See the remark on title I, sub-title 3.

Lithuania

Ignalina NPP is not ensured yet.

35. For the purposes of this question we presume that the accident occurred on the territory of your country.

36. Pour les besoins des questions suivantes, on suppose que l'accident est survenu sur le territoire de votre pays.

III. Post-Accident Phase

4. Medium and long term administration of the compensation claims by the insurer

a) Are there any agreements concluded between the insurer and one or more of its designated agents/contact points in neighbouring countries concerning the medium and long term management of accidents?

a) Are there any agreements concluded between the insurer and one or more of its designated agents/contact points in neighbouring countries concerning the medium and long term management of accidents?

a) Existe-t-il des conventions de gestion de sinistres à moyen et long terme conclues entre l'assureur de l'exploitant responsable et un ou plusieurs de ses correspondants désignés dans les pays voisins ?

Austria, Canada, Czech Republic, Germany, Japan, Korea, Sweden

No.

Belgium

Des accords-cadre pourraient être complétés de conventions particulières.

Finland

Yes, with reinsuring pools in respective countries, based on inter-pool Standard Reinsurance Rules.

France

Oui, de telles démarches sont en cours de réflexion avec les entités du groupe AXA.

Switzerland

Oui, mais uniquement entre l'État suisse et le Pool suisse des assureurs nucléaires.

United Kingdom

Arrangements would be made post accident in accordance with particular circumstances.

III. Post-Accident Phase

4. Medium and long term administration of the compensation claims by the insurer

b) Do the health establishments and the hospitals in the neighbouring countries transfer information on the progress in victims' treatment to the insurer?

b) Do the health establishments and the hospitals in the neighbouring countries transfer information on the progress in victims' treatment to the insurer?

b) *Les établissements de soins et hôpitaux des pays voisins transmettent-ils à l'assureur ou à ses correspondants désignés des informations sur l'évolution du traitement des victimes ?*

Austria

So far, there is no such kind of experience.

Belgium, Finland

No.

France

Sans objet (respect du secret médical). Selon la législation nationale ou les pratiques du pays voisin.

Germany

No. It might be necessary to exonerate them from their professional confidentiality.

Switzerland

Oui, car le formulaire *ad hoc* prévoit que le médecin soignant est délivré du secret médical par son patient.

c) How is the medium and long term management of the compensation claims organised in general?

c) *Comment est assuré le suivi des dossiers d'indemnisation à moyen et à long terme ?*

Austria

There is no regulation concerning the distribution of compensation in Austria.

Belgium

Normalement, le pool globalise les informations.

Canada

The medium and long-term management of the compensation of claims would likely fall under the purview of the Nuclear Damage Claims Commission (NDCC) under Part II of the NLA, and would be established by regulation under Section 28 of Part II of the NLA [see answer to sub-title 3, question d) *supra*].

Czech Republic

Not solved as yet (negotiations among state, operator and insurer needed).

Denmark

By the Danish State.

Finland

To the extent losses are covered by the Finnish Atomic Insurance Pool (FAIP), the pool's claims handling management committee has responsibility for long term management. Claims filed will be incorporated in a data basis, which will be maintained on a long term basis.

France

Une structure dédiée est mise en place qui peut nécessiter le recrutement de personnels en renforcement des équipes existantes selon l'ampleur du sinistre.

Germany

Provided that the claims are notified within the regulatory period of limitation and the ten-year period for filing a claim (see answer to question i), sub-title 3 *supra*) with the operator/insurer, the file will remain open until the claim has been closed. The files will be stored for at least six years after that [§ 257 *Handelsgesetzbuch* (German Commercial Code)]. See also answer to question i), sub-title 3 *supra*).

Japan

The insurance companies keep in contact with the victims and/or their hospitals continuously until the finish of the claim payment; we can see this situation typically in the case of traffic accident victims. However, when the insurance companies have paid the amount of indemnity of the insurance contract, the claim payment shall be closed. In accordance with this, the insurance companies will give up such contact.

III. Post-Accident Phase

4. Medium and long term administration of the compensation claims by the insurer

c) How is the medium and long term management of the compensation claims organised in general?

Luxembourg

Arrangement à l'amiable avec l'exploitant sinon saisine des tribunaux luxembourgeois assistés des experts (dans le pays affecté).

Sweden

Through the claims organisation.

Switzerland

Par l'assureur ; selon des modalités internes (establishment of loss data bank).

United Kingdom

The establishment of claims information database by insurer.

5. Interface with the worker compensation regime

5. Interface avec le régime d'indemnisation des travailleurs

a) Where workers are subjected to accidental exposure to radiation, to whom should they address their compensation claim for damage suffered?

a) À qui les travailleurs ayant subi une irradiation accidentelle doivent-ils adresser leur demande en réparation des dommages subis à la suite de l'accident ?

Austria

To the institution administering their respective Social Security scheme.

Belgium

À l'assureur « accidents du travail » en premier lieu, ensuite à l'assureur de l'exploitant.

Bulgaria

To the employer and to the Social Security Funds.

III. Post-Accident Phase

5. Interface with the worker compensation regime

a) Where workers are subjected to accidental exposure to radiation, to whom should they address their compensation claim for damage suffered?

Canada

An employee's rights to compensation for an injury due to work are found in provincial worker's compensation legislation.

Czech Republic

To their employer.

Denmark

Costs deriving from industrial injuries are paid by the employer's insurance company in case of accidents. The costs are paid by the Labour Market Occupational Diseases Fund (an independent institution) in case of occupational diseases.

For accidents, the employer must report the injury to his insurance company, who forwards the cases to the National Board of Industrial Injuries if compensation has to be paid.

For occupational diseases, the injured person's doctor must report the injury to the National Board of Industrial Injuries.

The National Board of Industrial Injuries handles all compensation claims under the Act on Protection against the Consequences of Industrial Injuries.

Finland

To their workman's compensation insurer.

France

Article 16 de la Loi française.

Germany

The liability that is being channeled according to Article 6(a) of the Paris Convention does not affect the public insurance systems' adjustment of claims put forward by workers who have suffered damage caused by a nuclear incident [see Article 6(h)]. In German legislation, any claims for compensation of workers who have suffered an accident at work or who have developed an occupational disease are dealt with in the Code of Social Security Legislation, Seventh Volume (SGB VII). Workers and other employees in nuclear power plants are subject to the compulsory accident insurance, as stipulated in Article 2 of SGB VII. If the insurance contingency has occurred in

III. Post-Accident Phase

5. Interface with the worker compensation regime

a) Where workers are subjected to accidental exposure to radiation, to whom should they address their compensation claim for damage suffered?

accordance with the definition in Article 7(1) of SGB VII (“The occurrence of occupational accidents or diseases constitutes the insurance contingency”), the insured party is entitled to receive medical therapy, vocational assistance benefits geared at rehabilitation, benefits for social rehabilitation and complementary benefits (such as assistance for motor vehicles, housing assistance) and benefits for persons in need of long-term care. During the medical therapy and the vocational rehabilitation phase, the insured party is also entitled to financial compensation (pay equivalent) and, in case of permanent damage, annuities (Article 26ff of SGB VII). With the exception of willful damage, the operator is excluded from liability [Article 104(1) of SGB VII]. Therefore, claimants may exclusively address their claims to the responsible accident insurance carrier. The compulsory accident insurance is exclusively for settling claims relating to bodily injuries. Damage to property is dealt with in Article 25ff of the Atomic Energy Act.

Italy

INAIL (the National Institute for Insurance of Accidents at Work and Occupational Diseases).

Japan

Compensation claims are addressed to the nuclear operator. The worker can also make claims to the government for compensation pursuant to the work-related accidents insurance regime. Economically, this has the same effect of compensating for the damage of the worker. Legally, however, it is not a liability claim.

Korea

By the workmen’s accident compensation insurance.

Luxembourg

À l’exploitant nucléaire ou à son représentant en vue d’un arrangement à l’amiable, sinon saisine des tribunaux luxembourgeois.

Poland

The operator or social security administration (State). It depends on what kind of company the operator is. If a stated – owned company – State, if a private company – the operator.

Sweden

To the national health authorities.

III. Post-Accident Phase

5. Interface with the worker compensation regime

a) Where workers are subjected to accidental exposure to radiation, to whom should they address their compensation claim for damage suffered?

Firstly it should be noted that the liability of the operator also covers damage suffered by workers. Workers, like other members of the public, can obtain compensation under the social insurance scheme, Act on General Social Insurance. Further, workers can obtain compensation under the Act on General Social Insurance for Work Related Injuries and Diseases. Claims based on these acts shall be brought against the National Social Insurance Offices. There is also in place a Security Insurance for Work-Related Injuries. Compensation shall be claimed against the insurer providing this insurance.

Switzerland

À son assureur accident.

b) On which legal basis is such compensation granted?

b) Sur quel fondement juridique cette réparation est-elle accordée ?

Austria

On the basis of the various social security laws.

Belgium

La législation afférente aux accidents du travail et à la responsabilité civile nucléaire.

Bulgaria

On the basis of the Labour Code and the Code of Obligatory Social Insurance.

Canada

See answer to sub-title 5, question a).

Czech Republic

Labour Code No. 65/1965 Coll.

Denmark

The provisions on compensation etc. relating to industrial injuries are laid down in the Act on Protection against the Consequences of Industrial Injuries.

Finland

On the basis of Finnish legislation in respect of workman's compensation.

France

Article 16 de la Loi française sur les fondements applicables en matière de « droit de la sécurité sociale » c'est-à-dire en principe, responsabilité objective mais exception relative à la faute inexcusable ou application du droit commun quand un tiers est responsable.

Germany

See question a) *supra*.

Italy

The so called "*presumptio juris*".

Japan

Compensation for nuclear liability against the operator: The Law on Compensation for Nuclear Damage.

Compensation pursuant to the work-related accidents insurance regime: The Law on Work-related Insurance.

Korea

Disaster compensation insurance law.

Luxembourg

Sur la responsabilité de l'exploitant nucléaire.

Poland

Special regime for compensation for damages suffered by workers.

Sweden

TFA and the Swedish Nuclear Liability Act.

Switzerland

Loi suisse sur la responsabilité civile nucléaire et Loi suisse sur l'assurance accident.

- c) **Does the State have a right of recourse against the operator of the installation where the accident occurred in order to reimburse the compensation paid to the exposed worker pursuant to the work-related accident insurance regime?**
- c) *L'État a-t-il un droit de recours contre l'exploitant de l'installation où s'est produit l'accident en vue du remboursement de la réparation allouée aux travailleurs exposés en vertu du régime d'assurance des accidents du travail ?*

Austria

The Republic of Austria owns the research reactor in Vienna. The owner of the licence with regard to radiation protection is the Atomic Institute. In case of gross negligence recourse by the Social Security institution(s) certainly cannot be ruled out.

Belgium

Non, sauf pour les victimes agents de l'État. L'accident du travail relève d'une assurance privée.

Bulgaria

No.

Canada

As is the case with provincial health care insurance regimes, provincial legislation governing worker's compensation contains provisions for recovery of costs where compensation has been paid for injuries resulting from the negligence or other wrongful act or omission of another person. However, it is unclear whether the province has any right of recourse against the operator.

Czech Republic, Luxembourg

Yes.

III. Post-Accident Phase

5. Interface with the worker compensation regime

c) Does the State have a right of recourse against the operator of the installation where the accident occurred in order to reimburse the compensation paid to the exposed worker pursuant to the work-related accident insurance regime?

Denmark

Under the Act on Protection against the Consequences of Industrial Injuries it is not possible to file a claim against the operator of the installation where the accident occurred.

Finland

The insurer providing workman's compensation insurance has a right of recourse against the operator and his TPL insurer.

France

En cas de faute inexcusable. Application du droit commun du travail.

Germany

Accident insurance carriers do not depend on the state. They are funded exclusively by contributions from the operators.

The right of recourse against the operator is limited to cases where the insurance contingency is provoked willfully or by gross negligence (Article 110 of SGB VII).

Italy

In the affirmative.

Japan

The State has a right of recourse against the operator when the operator caused the accident that caused the damage intentionally or with gross negligence.

Korea

No. Operator is the insured.

Sweden

No. At least as far as the compensation provided under the two acts referred to above, the State has no right of recourse against the operator liable.

III. Post-Accident Phase

5. Interface with the worker compensation regime

c) Does the State have a right of recourse against the operator of the installation where the accident occurred in order to reimburse the compensation paid to the exposed worker pursuant to the work-related accident insurance regime?

Switzerland

Non. Ce droit est dévolu à la Caisse nationale suisse d'assurance accident (SUVA).

d) If the amount of damage suffered exceeds the compensation limit established by the legislation governing insurance for work-related accidents, are exposed workers entitled to obtain the difference from the operator?

d) Si le montant des dommages subis dépasse la limite de réparation prévue par la législation sur le régime d'assurance des accidents du travail, les travailleurs exposés peuvent-ils s'adresser à l'exploitant pour obtenir la différence ?

Belgium, Bulgaria, Luxembourg, Poland, Switzerland

Oui.

Austria

Basically, compensation limits do not exist.

Canada

Under the Insurance Policy between the Nuclear Insurance Association of Canada (NIAC) and the operator, Section IV(f) states that: Coverage A of the policy does not cover any injury to an employee of the insured or of any other person to the extent of any compensation or benefits paid or which may be available to the employee upon application pursuant to the provisions of any workmen's compensation, unemployment compensation or disability benefits law or any similar scheme or law or any action for damages in lieu thereof.

Therefore, if the damages suffered by the worker exceeded the limit prescribed by the workers' compensation legislation, Section IV(f) would apply to only that amount of compensation paid by the workers' compensation regime, and the employee could make a claim under the NLA for amounts in excess of this.

Czech Republic

Legally not entitled, but they can sue the operator liable.

Denmark

The Act on Protection against the Consequences of Industrial Injuries does not prevent the injured person from filing a claim for compensation not covered by the Act against the operator.

III. Post-Accident Phase

5. Interface with the worker compensation regime

d) If the amount of damage suffered exceeds the compensation limit established by the legislation governing insurance for work-related accidents, are exposed workers entitled to obtain the difference from the operator?

Finland

No.

France

Oui, en vertu du droit commun. En cas de faute inexcusable pour les préjudices non réparés par le régime de la sécurité sociale.

Germany

SGB VII does not state a lump sum maximum compensation. Benefits in kind or in the form of services (medical therapy, rehabilitation) are granted without limit. The financial compensation basically measures up against the net wage of the insured person before the insurance contingency occurred. There are upper limits to annuities, and in this calculation the degree of reduced capacity for work must also be acknowledged. If the claim is addressed to and compensated by the accident insurance carrier, German law does not allow for claiming additional compensation from the operator (in this case the operator of a nuclear installation).

Japan

Exposed workers are entitled to such rights.

Sweden

If the compensation awarded under the two social security acts does not satisfy in full the damage sustained by the worker, he or she can claim the “missing part” from the operator liable.

6. How to exercise claims?

6. L'exercice des recours

a) Is it possible to group compensation claims (“class actions”)?

a) Existe-t-il une possibilité de regrouper les demandes en réparation (« class actions ») ?

Austria

“Class actions” in the sense they exist in the United States of America are not known in the Austrian legal system. Anyhow, several plaintiffs can file a joint action.

Belgium, Czech Republic, Denmark, Finland, Poland, Switzerland

No.

Bulgaria

The class action does not exist in Bulgarian procedure law. However the law permits the joint actions (Articles 123 and 171-173 of the Civil Procedure Code).

Canada, Luxembourg, United Kingdom

Yes.

France

Ce type d’action n’existe pas en droit français.

Germany

No, but “test cases” would be feasible.

Japan

It is possible to group compensation claims pursuant to the Civil Procedure Law, but class action is not possible because the Civil Procedure Law does not provide for such a procedure.

Korea

No, but general rule of civil procedure.

Sweden

At the moment there is no possibility for class actions in Sweden. The Government has however drawn up a draft Government Bill introducing the necessary legislation for class actions. It is not known when the proposal will be submitted to the Parliament.

b) Is it possible to claim directly against the operator's insurer:

b) *Existe-t-il une possibilité de recours directs contre l'assureur de l'exploitant :*

France

L'essentiel de l'indemnisation devra être effectué à l'amiable.

Germany

The claim is valid exclusively against the operator of a nuclear facility, however, it can be asserted against the insurer; see answer to question h), sub-title 3.

Japan

The Japan Atomic Energy Insurance Pool (JAEIP) shall not accept any claim made by the victims directly.

Korea

Yes.

United Kingdom

No.

- **in the accident State?**
- *dans l'État de l'accident ?*

Belgium, Czech Republic, Korea, Poland, Switzerland

Yes.

Austria

Yes, in case of an accident in one of the two Austrian research reactors (Section 24 of the Austrian Atomic Liability Act 1999).

Bulgaria

Yes, if there is an insurance policy.

Canada

No, only against the operator.

Finland

Yes, in accordance with the Finnish Nuclear Liability Law.

France

Oui, article 14 de la Loi française.

Sweden

In Sweden Yes. The Nuclear Third Party Liability Act provides for a right of direct action against the operator's insurer.

- **in the neighbouring countries?**
- *dans les pays voisins ?*

Belgium

Oui, si le droit belge est applicable.

Canada

No, only against the operator.

Finland, Poland, Sweden

Yes.

France

Oui, article 14 de la Loi française (en vertu de l'article 6 de la Convention de Paris).

Korea

Maybe yes. By mechanism of private international law.

Luxembourg

Le recours se fera contre l'exploitant nucléaire.

Switzerland

In Germany it does (bilateral agreement), other countries: depends on existence of reciprocal arrangement in the countries concerned.

c) **If not, how can victims living abroad bring proceedings?**

c) *Si ce n'est pas le cas, quels sont les recours que les victimes résidant à l'étranger peuvent intenter ?*

Canada

For a US victim, through the Canadian courts.

Germany

See answer to question h), sub-title 3.

Japan

Basically on bilateral basis, which means the victims should negotiate with the Nuclear Operator

Korea

No special consideration or rule for foreigner. Republic of Korea is not a party to any international convention.

Luxembourg

Recours contre l'exploitant nucléaire.

Switzerland

Action directe en Suisse, contre l'assureur.

d) Does the State of residence of victims assist them in entering their compensation claim etc.?

d) *Est-il prévu que l'État dont les victimes sont ressortissantes aide celles-ci dans leur demande en réparation ?*

Austria

Such assistance is provided for in Austria in the context of the general duty of public administrations and of the courts to assist the public.

Belgium

Non, hors systèmes d'assistance judiciaire de droit commun.

Bulgaria

A bilateral agreement on the legal assistance between the accident State and the State of residence of victims may include such provisions.

Canada

At this time, this does not appear to be the case.

Czech Republic

Yes (by diplomatic means).

Denmark

Will be decided by the Danish State in case of an accident.

Finland

If such assistance is needed, it would be available.

France

Oui, mais il n'existe pas de dispositif général.

Germany

It depends on the individual circumstances.

Japan

There is no legal responsibility for the State to make such assistance when Japan is the victim country. The government will decide how to deal with the situation depending on the situation.

Korea

If there is no special agreement, the concerned State can not assist them until exhaustion of local remedies.

Luxembourg

Oui.

Sweden, Switzerland

Non.

e) How can amicable settlement be organised?

e) *Quelles sont les procédures régissant le règlement à l'amiable ?*

Austria

Within as well as outside the tribunals at the discretion of the parties. The tribunals might assist the parties of a dispute brought before them.

Belgium

Non réglementé.

Bulgaria

The court is authorised to promote an amicable settlement (arrangement, approved by the court) of the claim (Articles 124-125 of the Civil Procedure Code). An arbitration agreement may be concluded in order to submit the dispute before an arbiter(s) and not before the state court (Article 9 of the Civil Procedure Code).

Canada

Once Part II of the NLA comes into force, the regular routes of receiving compensation, whether directly from the Nuclear Insurance Association of Canada (NIAC), or indirectly through the courts, are replaced by the Nuclear Damage Claims Commission (NDCC). The NDCC, an administrative tribunal body, is intended to replace the essentially adversarial nature of traditional tort litigation with an administrative tribunal system in order to allow fast and fair settlements of claims in the event of a large accident [see answer to sub-title 3, question d) *supra*].

Czech Republic

Ad hoc, might be organised by operator liable.

Finland

Yes, by filing a claim, after which normal claims settlement procedures will be implemented – subject to agreement by both parties.

France

Le droit commun et le Médiateur des assurances. Les procédures habituelles de règlement des sinistres exigeant un accord des parties ? Existence d’une directive européenne ?

Germany

The usual procedures can be followed.

Japan

There are three ways to reach an amicable settlement: direct negotiation between the claimant and the operator, mediation by the Dispute Reconciliation Committee for Nuclear Damage Compensation (or “Reconciliation Committee”), mediation by the court.

Korea

By intergovernmental negotiation.

Luxembourg

Cela dépend de l'exploitant nucléaire.

Sweden

All the time. Amicable settlements can of course be reached after negotiations between the parties. Even if the claimant has brought an action before the competent court, that does not exclude that the parties can take up or continue their efforts to reach an amicable settlement of the dispute. Under certain circumstances the court can appoint a conciliator/mitigator. Even the judge can guide the parties in the negotiations.

Switzerland

By means of negotiations between insurers and victims or in court procedures.

f) If a dispute is brought before a tribunal, which tribunal will have jurisdiction?

f) En cas de litiges portés devant le tribunal, quel tribunal sera compétent ?

Austria

The relevant provision of the Austrian Atomic Liability Act 1999 reads as follows:

Jurisdiction

Section 22

(1) Claims and applications for interim injunctions filed under this Federal Act or other legal instruments for damage caused by ionising radiation, shall be heard by the Court of First Instance. This provision shall apply equally to claims and applications for interim injunctions to recover the costs of preventive measures.

(2) With regard to the claims and applications referred to in Paragraph (1), the Court of First Instance shall also have territorial jurisdiction when this court is in the district in which the damage was caused or sustained or the preventive measures were taken.

(unofficial translation)

Belgium

Le tribunal de première instance de Bruxelles (pour un sinistre en Belgique ou dont l'exploitant belge est responsable).

Bulgaria

If Bulgaria is an accident State, Bulgarian court will be competent (Article XI of the Vienna Convention and Article 38, Section 1 of the Act on the Use of Atomic Energy for Peaceful Purposes). Bulgaria (State Gazette 64/1994) ratified the Vienna Convention. Among the Bulgarian courts Sofia District Court will be competent as first instance (Article 38 of the Act on the Use of Atomic Energy for Peaceful Purposes.). Its decision is subject to appeal before the Sofia Court of Appeal. The High Court will be competent in case of cassation of the decision of the Court of Appeal.

Canada

The NDCC or the Canadian court having jurisdiction (normally the provincial court in the province in which the accident occurred).

Czech Republic

Locally competent court.

Denmark

The question on jurisdiction will be covered by the Danish Administration of Justice Act.

Finland

The District Court of Helsinki.

France

Le Tribunal de Grande Instance de Paris.

Germany

The Atomic Energy Act does not contain any special provisions regarding the jurisdiction. Therefore, the general rules apply:

The subject matter jurisdiction is based on whether it is a civil law suit against an operator or whether official liability proceedings are instituted, for instance against the supervisory authority. Official liability proceedings have to be opened at the district court, independent from the amount in dispute [see Article 71(2)(2) of the Law on the Judicial System (GVG)]. In all other cases, jurisdiction is decided on the basis of the amount in dispute. As of 1 January 2002, the local courts are in charge of legal actions over amounts in dispute not exceeding 5 000 EUR, in all other cases jurisdiction lies with the district courts [see Article 23(1) and Article 71(1) of the GVG as amended by the version in force since 1 January 2002].

It cannot be stated clearly whether the local jurisdiction is determined by Article 32a of the Code of Civil Procedure (ZPO) or by Article 32 thereof.

According to Article 32 of the ZPO, when initiating action founded in tort including cases of liability regardless of fault and official liability, jurisdiction lies with the court in whose district the tort was committed. The jurisdiction is not exclusive, which means that generally action can also be brought before the court in the district where the defendant lives or is headquartered. The concept of *lex loci delicti* (*Handlungsort*) is understood in a wider sense and includes, according to established case law, also the *Erfolgsort* where the damage was caused.

When liability for environmental effects emanating from an installation as defined in Annex 1 of the Act on Liability for Environmental Damage is at stake, Article 32a, sentence 1 of the ZPO stipulates that in proceedings against the operator of the installation exclusive jurisdiction lies with the court at the place of commission. Action has to be taken before the court in whose district the environmental effects emanating from the installation materialize. That precludes action at the *Erfolgsort* where the damage was caused or at the court under whose general jurisdiction the defendant falls. According to Article 32a, sentence 2 of the ZPO, this does not apply if the installation is located abroad.

It is unclear whether Article 32a of the ZPO can be applied to litigations involving liability as defined in the Paris Convention and the Brussels Supplementary Convention, but relevant comments in literature mostly deny this.

Japan

The court which has jurisdiction over the place where either the accident or the damage occurred.

Korea

Tribunal is determined by the Civil Procedure Code.

Luxembourg

Les tribunaux luxembourgeois.

Poland

The district court proper for the operator, but in the case when the limited liability fund is established – the district court in Warsaw.

Sweden

The competent public court. A claim should be brought before the court for the place where the nuclear incident occurred. This applies both to claims against the operator and directly against its insurer. If a court decision is rendered in the state where the liable operator has his place of business, which would be the case if the incident has occurred in that state, the most likely scenario seems to be that the claimant will seek enforcement in that state. If however the incident state and the installation state are not the same, then the judgment shall be recognised and enforced in accordance with the Paris Convention (if the states concerned are Contracting Parties to that instrument).

Switzerland

Celui où est située l'installation nucléaire. Il doit s'agir d'une instance cantonale unique désignée par le canton.

- g) Given that in the INEX 2000 exercise the competent court will be in France, how will the decisions of this court be transmitted to neighbouring countries and how will their recognition and enforcement in those countries be controlled?**
- g) Sachant, dans l'hypothèse de l'exercice INEX 2000, que le tribunal compétent se situera en France, comment sera organisée la transmission des décisions de cette juridiction et le contrôle de leur reconnaissance et exécution dans les pays voisins ?*

Austria

For Austria as for most other members of the European Union, the matter will be governed starting with 1 March 2002 by Council Regulation (EC) No. 44/2001 of 22 December 2000 on jurisdiction and the recognition and enforcement of judgements in civil and commercial matters (OJ L 012, 16/01/2001 p. 1-23). Currently, the matter is governed by the Brussels Convention on Jurisdiction and the Enforcement of Judgements in Civil and Commercial Matters.

Belgium

Voir France (sous réserve des dispositions relatives à l'exequatur qui seront précisées plus tard).

III. Post-Accident Phase

6. How to exercise claims?

g) Given that in the INEX 2000 exercise the competent court will be in France, how will the decisions of this court be transmitted to neighbouring countries and how will their recognition and enforcement in those countries be controlled?

Bulgaria

There is a special procedure for recognition and enforcement of foreign court decisions (Articles 303-307 of the Civil Procedure Code). The Sofia District Court should be competent to recognise and permit the enforcement of a foreign judicial decision if there is an international treaty on this subject. In the case with decision of a French court, such agreement will be the Joint Protocol for the application of the Vienna Convention and the Paris Convention. The recognition and the enforcement of the decision will be made on the basis of Article XII of the Vienna Convention.

Denmark

According to the Act on Nuclear Liability a decision of a foreign court concerning the operators liability covered by the Paris Convention could – if certain conditions are fulfilled – be enforced by the bailiff's court.

Finland

If not through government channels, through victims to the Helsinki Court of Appeal.

France

Si les pays voisins sont Parties à la Convention de Paris, la reconnaissance de la loi est de droit de même que son exécution.

Germany

If a court document on a civil or commercial case is to be transferred from France to the Federal Republic of Germany, Council Regulation (EC) No. 1348/2000 of 29 May 2000 on the service in the Member States of judicial and extrajudicial documents in civil or commercial matters will be applied (Service Regulation).

The Service Regulation that entered into force on 31 May 2001 foresees direct communication between receiving and transmitting agencies and, under certain circumstances, also allows for direct transmission via registered mail:

- According to Article 4 of the Service Regulation judicial documents may be transmitted directly between the transmitting and receiving agencies in the Member States. For that purpose the French transmission agency will forward the transmission request to the German receiving agency. A list of the transmission and receiving agencies can be found on the web under http://europa.eu.int/comm/justice_home/unit/civil_reg1348-en.htm and also in the service regulation handbook that has recently been published by the European Commission.

III. Post-Accident Phase

6. How to exercise claims?

g) Given that in the INEX 2000 exercise the competent court will be in France, how will the decisions of this court be transmitted to neighbouring countries and how will their recognition and enforcement in those countries be controlled?

Furthermore, a German translation of the document to be transmitted has to be enclosed, otherwise the receiving agency may refuse to accept it. If the defendant is a French citizen, the document may be written in French.

The service of the document will then be effected by the receiving agency according to German law (Article 7 of the Service Regulation). The procedure for service of the document is in line with Article 166ff. of the German Code of Civil Procedure (ZPO). The text is available in German under <http://jurcom5.juris.de/bundesrecht/zpo/index.html>.

The German receiving agency will then issue a certificate of service including the date of service (Articles 9 and 10 of the Service Regulation). The certificate of service, which may also be drawn up in English, will be forwarded to the French transmitting agency.

- The service of judicial documents may also be effected by post (Article 14 of the Service Regulation). Regarding that stipulation, the Federal Republic of Germany has made a reservation, stating that essentially the following steps must be observed: Without involving a state agency, the document must be sent as registered mail with advice of delivery. A German translation of the document to be transmitted has to be enclosed, as the receiving agency may again refuse to accept it. If the defendant is a French citizen, the document may be written in French.
- Service by diplomatic or consular agents will still be possible (Article 13 of the Service Regulation).
- Direct service in line with Article 15(1) of the Service Regulation is out of the question, as the Federal Republic of Germany has filed a reservation against the application of this Article.

Regarding recognition and enforcement, the so-called Brussels I Regulation [Council Regulation (EC) No. 44/2001] of 22 December 2000 on jurisdiction and the recognition and enforcement of judgements in civil and commercial matters has been in force since 1 March 2002. The I Regulation replaces the Brussels Convention of 27 September 1968 on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters. The procedure followed within the order of enforcement will be further streamlined and simplified by the Brussels I Regulation.

For the enforcement proper the rules of the execution state apply.

Japan

There is no special system for transmitting the decision of the French court to the Japanese court. In order to enforce the decision of the French court in Japan, the person who received the decision must file a claim to the Japanese court a claim to enforce the decision.

III. Post-Accident Phase

6. How to exercise claims?

g) Given that in the INEX 2000 exercise the competent court will be in France, how will the decisions of this court be transmitted to neighbouring countries and how will their recognition and enforcement in those countries be controlled?

Korea

In Korea, in principle, we need the conclusion of bilateral agreement on recognition and enforcement of foreign judgement. If there exists such agreement the competent court will control foreign judgement.

Luxembourg

Au Luxembourg, les tribunaux luxembourgeois sont compétents pour l'exécution des jugements ; voir Convention de Bruxelles de 1968 et Règlement (CE) n° 44/2001 du Conseil.

Poland

General rules of the international civil procedures and international private law should be involved.

Switzerland

Sur la base des Conventions existantes sur la reconnaissance et l'exécution des décisions civiles. La Suisse n'a pas ratifié les Conventions Paris/Bruxelles.

h) How will the interface between the procedures for direct compensation by the insurer and the competent court before which compensation claims will have been brought be organised?

h) Comment s'organisera l'interface entre les procédures d'indemnisation directe par l'assureur et le tribunal compétent saisi d'actions en réparation ?

Austria

As in other cases brought before the courts.

Belgium

Non fixé à ce jour.

Bulgaria

Before the courts.

III. Post-Accident Phase

6. How to exercise claims?

h) How will the interface between the procedures for direct compensation by the insurer and the competent court before which compensation claims will have been brought be organised?

Canada

Once the claimant is satisfied of the insurance settlement, he or she will sign a release, discharging any further recourse to compensation [according to Section 321 of the Insurance Act].

Czech Republic

Not clarified as yet.

Finland

This could most likely be left to legal action by either the insurer(s) or the operator, whichever is the defendant.

Germany

This requires coordination between the operator of the nuclear installation and the insurer.

Japan

Basically, there is no relation between the handling of the claim by the insured and the procedure of the court. However, when a claim fails to be settled out of court and is brought to court for a trial, the insurance companies will make the payment after receiving the final decree.

In respect of discrimination in the claim, for instance giving priority to a claim against bodily injury, we do not suppose a specific problem will arise because the Japanese Nuclear Compensation Law adopts the unlimited liability scheme.

Korea

Information not available.

Switzerland

Once a case has been brought to court insurance procedures will be geared towards its final decision. Insurance payments to the extent of the undisputed part of the relevant claim(s) are conceivable.

7. The interface between the accident State and the international nuclear third-party liability regime

7. L'interface entre l'État de l'accident et le régime international de responsabilité civile nucléaire

Bulgaria

The questions in this section generally concern the application of the Brussels Supplementary Convention to the Paris Convention on Third Party Liability. The Republic of Bulgaria is not a Party to these Conventions.

Korea

Korea is not a party to any international convention.

Switzerland

La Suisse n'a pas ratifié les Conventions Paris/Bruxelles.

- a) **How will the accident State inform the other Contracting Parties to the Brussels Supplementary Convention (BSC) when it appears that the damage may exceed the compensation tiers for which the operator and the accident country are responsible (175 million SDR; in France, 1.5 billion FRF)?**
- a) *Par quelles procédures le pays de l'accident informera-t-il les autres Parties Contractantes à la Convention complémentaire de Bruxelles (CCB) dès lors qu'il apparaît que les dommages sont susceptibles de dépasser les tranches de réparation à la charge de l'exploitant responsable et de l'État de l'accident (175 millions DTS ; en France, 1,5 milliard FRF) ?*

Belgium

Par la voie diplomatique.

Denmark

As a starting point through ordinary diplomatic channels.

Finland

Most likely through the Belgian Government, and perhaps additionally by diplomatic action vis-à-vis the Contracting Parties.

III. Post-Accident Phase

7. The interface between the accident State and the international nuclear third-party liability regime

a) How will the accident State inform the other Contracting Parties to the BSC when it appears that the damage may exceed the compensation tiers for which the operator and the accident country are responsible?

France

Notification par procédure diplomatique classique.

Germany

Article 10 BSC is the legal base for the information of other Contracting Parties. States Parties are obliged to inform the other Contracting Parties of an incident. Article 10 requests from Contracting Parties to inform when it appears that the damage may exceed the second tier of the BSC. However, since the liability and the coverage amount of compensation under the German Nuclear Energy Act is higher than the total amount under the BSC, the so-called deferment solution applies to this case. It follows that Germany may only request the payment of the third tier when the financial means to cover the operator's liability (i.e. 2.5 billion EUR) are exhausted. Consequently, Germany would inform the other Contracting Parties of a nuclear incident when it appears that the amount of 2.5 billion EUR will be exceeded.

Under the revised BSC, this legal situation will change since the deferment solution does not any longer apply.

Any information under Article 10 will be conveyed through normal diplomatic channels, however, modern electronic media, such as e-mail, may also be used if necessary.

Sweden

The accident State will have to act in accordance with Articles 10 and 11 of the BSC.

b) More generally, how is the interface organised between the accident State and the other countries Parties to the BSC?

b) Plus généralement, comment s'organise l'interface entre l'État de l'accident et les autres pays de la CCB ?

Belgium

Par la voie diplomatique.

Finland

Not formally organised at present time.

France

L'indemnisation a lieu au fur et à mesure dans tous les pays concernés jusqu'à épuisement des fonds prévus par les Conventions.

Germany

In addition to Article 10 BSC, there are no special organizational arrangements between Germany as a possible accident state and the other Contracting Parties to the BSC. See also answer to question a) *supra*.

- c) **How is the continuity and uniformity of compensation claims handling for the three tiers guaranteed? If the insurers are responsible for the handling of claims under the first compensation tier (operator tier), will that also be the case for the second tier under the BSC (i.e. the sum between 600 million and 1.5 billion FRF provided from installation state funds) and the third tier (called "the international tier", between 1.5 billion and 2.5 billion FRF)?**
- c) *Comment la continuité et l'uniformité de la gestion des demandes en réparation pour les trois tranches est-elle assurée ? Si les assureurs sont chargés de la gestion et de la distribution de la première tranche d'indemnisation (tranche de l'exploitant), en sera-t-il de même pour la deuxième tranche au titre de la CCB (c'est-à-dire la somme entre 600 millions et 1,5 milliard FRF alimentée par les fonds de l'État de l'installation) et la troisième tranche (dite « internationale », entre 1,5 milliard et 2,5 milliards FRF) ?*

Belgium

Aucun mécanisme n'est fixé à ce jour. Il est cependant probable que l'unité de gestion sera assurée par voie conventionnelle.

Finland

Most likely through an agreement between the State and the insurer(s).

France

Le dispositif respectera le principe du guichet unique, quel que soit l'origine des indemnisations. En fonction du montant des dommages à indemniser, le mode d'interface le mieux adapté entre le gestionnaire pour les fonds de l'exploitant et l'État sera retenu.

III. Post-Accident Phase

7. The interface between the accident State and the international nuclear third-party liability regime

c) How is the continuity and uniformity of compensation claims handling for the three tiers guaranteed? If the insurers are responsible for the handling of claims under the first compensation tier (operator tier), will that also be the case for the second tier under the BSC and the third tier?

Germany

This question does not exactly fit into the scheme of the nuclear liability system in Germany.

Germany imposed unlimited liability on its operators, however, in case of damage suffered outside of Germany, it applies the principle of reciprocity. It follows from this legal situation that the amounts made available under the BSC are used as coverage of the operator's liability. There is no three tier compensation.

There is no problem of uniformity and continuity. Victims may only sue against the operator. There is no need to sue other persons than the operator liable.

According to German insurance legislation, the insurers are obliged to cover the claims handling costs as far as the insurance covers the risk. Insurers do not bear the claims handling costs if other persons like the state contribute to covering the operator's liability.

Sweden

Under the Swedish legislation there are no provisions regarding the claims handling for the public funds. In case of an incident that triggers the public funds according to BSC either the Government or an authority appointed by it would have to deal with the claims handling. Another way to solve this would of course be for the Government to conclude an agreement with a relevant insurer and thus entrust it with the task to conduct the claims handling also regarding the public funds.

As for uniformity and continuity such an agreement would maybe require some kind of monitoring mechanism. At the end of the day though, the guarantor of uniformity and continuity will be the competent court.

If there is an agreement between the State and the insurer, the latter acts on behalf of the State and would probably be authorised to take decisions that bind the State. However, since the insurer would be dealing with public funds, it seems as if the State would be competent to review the decisions taken by the insurer.

III. Post-Accident Phase

7. The interface between the accident State and the international nuclear third-party liability regime

d) If this is the case, will the power of decision in relation to loss adjustment remain with the insurer's adjusters and will their decisions be binding on the operator and the State as well as the competent court?

d) **If this is the case, will the power of decision in relation to loss adjustment remain with the insurer's adjusters and will their decisions be binding on the operator and the State as well as the competent court?**

d) *Si c'est le cas, le pouvoir de décision en ce qui concerne le « loss adjustment » demeure-t-il chez les « adjusters » de l'assureur et leurs décisions engagent-elles l'exploitant et l'État ainsi que le tribunal compétent ?*

Belgium

Si un tribunal est saisi, c'est le juge qui statue en dernier ressort (sauf utilisation par le Roi de son pouvoir de fixer des montants forfaitaires qui s'imposent au juge).

Finland

Between the insurer(s) and the operator it would depend on the contractual terms entered between them. The same goes for possible agreement between the insurer(s) and the State. The Court would still be independent in its considerations.

France

La pratique du *loss adjustment* ne s'applique pas en France.

Quel que soit le mode de gestion retenu, les fonds d'origine publique sont soumis aux principes généraux de l'ordonnancement et de la liquidation des dépenses publiques. Toute décision d'indemnisation sur ces fonds requiert donc l'accord de l'État. Les procédures sont aménagées en conséquence.

Germany

There is no legal provision which provides that the decisions of insurers adjusters are binding on the operator. Normally there will be limits to the insurance adjuster's power of decision. This issue may be part of the insurance contract.

Since the nuclear liability is jointly covered by private money and state money, also the state needs to be involved in the compensation procedure. It means that normally insurer, state, and operator have to agree on the power of decision of the adjusters.

III. Post-Accident Phase

7. The interface between the accident State and the international nuclear third-party liability regime

e) What would be the terms of remuneration of the insurers for their work in handling the claims in respect of the second and third tiers?

e) What would be the terms of remuneration of the insurers for their work in handling the claims in respect of the second and third tiers?

e) Quels seraient les termes de la rémunération des assureurs pour leur travail de gestion des deuxième et troisième tranches ?

Belgium

À fixer.

Finland

To be decided through an agreement.

France

Les termes de rémunération du prestataire de service en charge de la gestion de chaque tranche dépendent d'abord du dispositif dans lequel s'inscrit cette prestation. Dans ce cadre, les termes de rémunérations relèvent du contrat passé entre le prestataire et le bailleur de fonds.

Germany

This question is not entirely compatible with the German legal situation.

As far as the insurers provide coverage, they are legally obliged to also cover the claim handling. These costs will be paid out of the premium income of the insurers. There is not yet an arrangement between the insurers and the indemnifying state with regard to continuing the claim handling by the insurance industry. If there would be such an arrangement, it would also probably be a part of this arrangement, that the state would pay a fee to the insurer for handling the claim.

Sweden

The insurer would of course charge a fee for the services rendered. The level of that fee will have to be decided in the contract between the insurer and the State.

III. Post-Accident Phase

7. The interface between the accident State and the international nuclear third-party liability regime

f) How are sums due under the third tier to be organised? In particular, how are the following issues decided: the reference date for calculating indemnities?

f) How are sums due under the third tier to be organised? In particular, how are the following issues decided:

f) Comment s'organise le règlement des sommes dues au titre de la troisième tranche ? Quels sont en particulier :

- **the reference date for calculating indemnities?**
- *la date de référence pour le calcul des indemnités ?*

Belgium

La date du sinistre.

Finland

The same as concerning the first tier.

France

Régime prévu par les Conventions.

Germany

With regard to the calculating of the damage, the starting point apparently is the day of the incident. Since legal procedures and dispute settlement may last a very long time, the final decision on compensation should also take into account that there may be a change of value of the goods damaged. Probably, in that case, the day of the final judgement or of the final dispute settlement would be the reference date.

Sweden

Regarding the organisation of the funds referred to in the third tier of the BSC the Contracting Parties will have to apply inter alia Articles 10, 11 and 12.

III. Post-Accident Phase

7. The interface between the accident State and the international nuclear third-party liability regime

f) How are sums due under the third tier to be organised? In particular, how are the following issues decided: the reference date for calculating indemnities?

- **the exact calculation of national contributions?**
- *le calcul exact des contributions nationales ?*

Belgium

Selon l'article 12 de la CCB.

Finland

Most likely the first calculation would be carried out by Finnish authorities prior to any action under 7(a).

France

Régime prévu par les Conventions. L'article 12 de la CCB prévoit une clé de répartition.

Germany

See Article 12 BSC.

- **provision for payment of national contributions to the international tier by instalment?**
- *l'échelonnement éventuel des contributions nationales à la tranche internationale de réparation ?*

Belgium

Non prévu.

Finland

No legal regulation exist.

France

En fonction des dommages à indemniser.

III. Post-Accident Phase

7. The interface between the accident State and the international nuclear third-party liability regime

f) How are sums due under the third tier to be organised? In particular, how are the following issues decided: the reference date for calculating indemnities?

Germany

Since the occurrence of an incident which would trigger the Brussels System is entirely uncertain and not very probable, there is no special entry in the state budget. If there is an accident, financial means will be provided *ad hoc*. This general principle also applies to the means to be provided under the BSC.

- g) **In particular, will the accident State “advance” the funds in respect of the international tier and if so, how will it be reimbursed by the countries concerned at a later stage?**
- g) *Notamment, le pays de l'accident « fera-t-il l'avance » de la tranche internationale et, si tel était le cas, comment se fera-t-il rembourser par les pays concernés?*

Belgium

Oui. Par la voie diplomatique.

Finland

An advancement would take place by the State, and contributions for the third tier would be asked for later.

France

Aucune avance n'est prévue par les Conventions.

Germany

There is no express legal provision under German law on this issue. However, in order to avoid hardships, the state will most probably find practical solutions, which will also allow advancing money to victims. If this money is taken in advance from expected Brussels' funds, the right of reimbursement follows from Article 3 of the BSC, which entitles the accident states to the funds of the third tier.

Sweden

The issue of advance payment by the accident state and reimbursement are dealt with in Article 11(a) of the BSC.

III. Post-Accident Phase

7. The interface between the accident State and the international nuclear third-party liability regime

h) If a neighbouring State, Party to the BSC, is entitled to a certain amount of compensation to indemnify its national victims of the accident, how can that State exercise such a right, particularly in relation to funds it is required to provide pursuant to the BSC?

h) If a neighbouring State, Party to the BSC, is entitled to a certain amount of compensation to indemnify its national victims of the accident, how can that State exercise such a right, particularly in relation to funds it is required to provide pursuant to the BSC?

h) Si un État voisin, Partie à la CCB, a droit à un certain montant de réparation pour indemniser ses ressortissants victimes de l'accident, comment peut-il faire valoir ce droit, notamment par rapport aux fonds qu'il doit verser au titre de la tranche internationale de la CCB ?

Belgium

A priori, ce droit de l'État n'existe pas, sauf s'il est mandataire de ses ressortissants, auquel cas il n'a pas plus de droits que ceux qu'il représente et ne peut donc opérer de compensation avec « sa » contribution au titre de la tranche internationale.

Finland

It is unclear as to what situation the question purports to deal with.

France

Aucun système de compensation n'est prévu par les Conventions, et cela paraît même à proscrire.

Germany

According to Article 10(b) only the Contracting Party whose courts have jurisdiction shall have the exclusive competence to disburse the international funds under that Convention. The victim state is not at all entitled "to a certain amount of a compensation to indemnify its national victims of the accident". The third tier goes, so to speak, into one pot into which all Contracting Parties pay their money and this pot will be distributed in accordance with the rules of the Paris Convention and in addition with the rules of the BSC.

Sweden

If a State refuses to contribute to the third tier of the BSC it will be in breach of the Convention and thus international law. There should be legal mechanisms in force to deal with such a situation. National legislation may provide that action can be brought against the state in order to obtain compensation. For Sweden, reference can be made to Sections 29 and 37 of the Nuclear Third Party Liability Act.

III. Post-Accident Phase

7. The interface between the accident State and the international nuclear third-party liability regime

i) How will the interest and costs as set out in Article 7(g) of the PC and Article 3(f) of the BSC be charged to the operator, the accident state or other BSC countries respectively?

i) How will the interest and costs as set out in Article 7(g) of the PC and Article 3(f) of the BSC be charged to the operator, the accident state or other BSC countries respectively?

i) Comment les intérêts et dépens visés à l'article 7(g) de la CP ainsi qu'à l'article 3(f) de la CCB seront-ils pris en charge par respectivement l'exploitant, l'État de l'accident et les autres pays CCB ?

Belgium

Par chaque intervenant pour les frais relevant de « sa tranche » (sauf limites) et, pour la troisième, au prorata des interventions respectives.

Finland

Under the Paris system, the insurer(s) will cover a fixed maximum amount as part of the policy. The interest and costs beyond that would have to be covered by the State in the first instance, and afterwards included in the calculation for the contributions under the third tier.

France

Les intérêts et dépens seront pris en charge conformément aux dispositions des Conventions. En France, de tels intérêts sont garantis par les assureurs à hauteur de 5 % du montant de la garantie principale.

Germany

As under German law only the operator liable will be defendant in a nuclear liability lawsuit, the judge will decide on interests and costs only vis-a-vis the operator. The Paris Convention in its Article 7(g) very clearly states that the operator liable has to pay the interests in addition to the compensation to be paid. With regard to the Brussels money, Article 3(f) BSC provides for a clear decision on who has to provide coverage for those costs, if necessary. Unlike in Switzerland in the German law, there is no express provision which requires the operator to provide additional financial security for covering legal costs.

APPENDIX 1

Introductory remarks made by Canada

The following introductory remarks give a synopsis of the Canadian framework and implementation procedures for response to a peacetime nuclear emergency (defined as a non-wartime event which has led or could lead to a radiological threat to public health and safety, property, and the environment).

Overview

In Canada, nuclear emergency preparedness and response are multi-jurisdictional responsibilities.¹ The operators of nuclear facilities are responsible for on-site emergency planning, preparedness and response. Off-site, provincial governments have the primary responsibility for protecting public health and safety, property and the environment within their borders. However, as a condition of granting the operator of a nuclear facility a licence to operate, the Canadian Nuclear Safety Commission (CNSC), Canada's federal nuclear regulator, requires the operator to have adequate measures in place to prevent and mitigate the accidental off-site releases of radioactive materials, including assisting off-site authorities with emergency response.²

The Government of Canada is responsible for coordinating its own response, providing support to provincial response efforts, and liaising with other provinces, territories, neighbouring countries and the international community during a nuclear emergency. Health Canada administers, and is the lead federal department for the Federal Nuclear Emergency Plan (FNEP) of December 1997, which describes the federal government's preparedness and coordinated response to a nuclear emergency. The federal government also manages the nuclear liability regime and is responsible for coordinating the national response to a nuclear emergency in a foreign country affecting Canadians.

Framework and Basic Principles

In with the scale and nature of the event, a nuclear emergency could result in the widespread, transboundary distribution of radioactive material, with consequences which would implicate multiple jurisdictions, departments/ agencies and orders of government. Response to the nuclear emergency is based on the following principles (as outlined in the FNEP):

First principle: The responsibility to deal with emergencies is placed first on the organization responsible for the facility, then on successive orders of government as the resources, expertise, or mandates of each are required or affected.

1. Source: Health Canada: <http://www.hc-sc.gc.ca/ehp/ehd/rpb/enviro/fnep/>

2. Nuclear Safety and Control Act, Class I Nuclear Facilities Regulations, P.C. 2000-784, 31 May 2000, Section 6(k).

Second principle: A nuclear emergency will require a coordinated federal and provincial response. Involvement by government emergency management organizations in the response to the off-site consequences of a nuclear emergency should be carried out in accordance with, and in respect of, the authorities and jurisdictions of each order of government and in accordance with relevant federal and provincial agreements.

Third principle: An effective response will require federal and provincial cooperation in the planning, preparedness and response phases. Support from one order of government to another must be provided while retaining operational control at that level of government having jurisdictional authority.

Fourth principle: The FNEP sets out the Government of Canada's preparedness and coordinated response to a nuclear emergency. FNEP is intended to complement existing and future provincial nuclear emergency plans or all-hazard contingency plans. These plans should be complementary, and reflect respective provincial and federal roles and capabilities for emergency planning, preparedness and response.

Fifth principle: The FNEP is intended to complement and to facilitate implementation of Canada's international commitments and agreements relevant to nuclear emergencies.

Thus, the occurrence of a nuclear emergency will lead to a sequence of response actions focussing on managing the incident and mitigating its effects (the responsibility of the site operator), and protecting the public against actual or potential effects of the incident (the responsibility of the site operator and governments, through the respective emergency measures organizations). Depending on the location, source, and magnitude of the nuclear emergency, response can take the following steps:

1. local governments will remain responsible for managing and conducting emergency operations within their boundaries;
2. the provincial government will establish provincial emergency centre(s) to coordinate provincial actions in accordance with their respective nuclear or "all-hazards" emergency response plans;
3. provinces outside the affected area may choose to activate their support centres as required;
4. the Government of Canada will conduct emergency operations (coordinated under FNEP) which are within the federal mandate, and will provide, at the request of the provincial government, national support services and resources.

Implementation Procedures

When an emergency event occurs at a facility licensed by the CNSC, the Commission should normally be the first federal agency involved in the emergency, and would implement its emergency response plan. For a nuclear emergency occurring in a foreign country, the Department of Foreign Affairs and International Trade, the CNSC, the Office of Critical Infrastructure Protection and Emergency Preparedness (OCIEP),³ or other department/agency may be the first to be notified.

3. Formerly Emergency Preparedness Canada (EPC).

Once informed of a nuclear emergency, a federal department/agency or a provincial emergency measures organization would contact the emergency numbers of either the OCIPEP at the federal Government Emergency Operations Coordination Centre (GEOCC) or Health Canada's National Coordinator for the FNEP. Each of these primary contacts will notify the other.

The FNEP describes the federal response in support of a province during a nuclear emergency or following a nuclear accident in a foreign country. Provincial annexes are developed to improve the interface between the federal and the provincial organizations.

Based on factors such as the nature, magnitude and location of the event, and the real or potential impacts on Canadians, the National Coordinator (Health Canada) will consult with other relevant authorities concerning the requirement to implement all or portions of the FNEP. These consultations may require activation of all or portions of the National Support and Coordination Structure⁴ prior to deciding on implementation of the FNEP.

Implementation levels of FNEP

Monitoring: federal liaison officers and technical specialists from the Federal Regional Organization⁵ may be activated in accordance with the appropriate provincial nuclear emergency plan or provincial annex of the FNEP.

Partial or Full Implementation: all designated officials of the National Support Centre regional emergency centres report for duty in the appropriate emergency centres. Relevant emergency plans, procedures, and emergency centres of federal departments and agencies are implemented and liaisons established with the National Support Centre and regional emergency centres. Large-scale assistance operations to the province would normally take place under full implementation. [FNEP Sections 2.2, 4.2 and 5]

Government of Canada Responsibilities with Respect to Compensation for Third-Party Victims of a Nuclear Accident

The NLA, proclaimed in 1976, establishes the liability regime for nuclear third-party injury and damage arising from nuclear accidents in Canada. It reflects the principles of the international nuclear third-party liability conventions.

The NLA provides for a well-defined compensation system for victims. In the event of an accident, the NLA would compensate victims for injury, loss of life, loss of property, damage to property, and damages resulting from loss of property or damage to property.

-
4. The National Support and Coordination Structure, activated when the FNEP is implemented, is the umbrella organization established for the timely and coordinated response by federal departments and agencies to a peacetime nuclear emergency.
 5. The Federal Regional Organization is the body composed of regional federal officials who would provide the specific federal-provincial interface and links between the emergency management organizations when a Province's nuclear emergency plan is implemented. Every province has its own unique emergency management structure and requirements for federal support in the event of a nuclear emergency in that province, therefore the structure of the organization would differ from province to province [FNEP, Section 3.4].

In the event of a small nuclear accident, victims would submit claims to the nuclear insurers under the terms of Part I of the NLA. The insurers would assess and decide on the payment of claims, and pay the claims on behalf of the operator. If the claimant was unsatisfied with the compensation awarded, the court having jurisdiction would hear the claim and make a decision.

In the event of a large nuclear accident, or where it was deemed in the public interest to do so, Part II of the NLA would be proclaimed, and the federal Cabinet would establish the Nuclear Damage Claims Commission (NDCC). The NDCC would act as a claims tribunal to deal with the large numbers of claims expected from a major accident. The NDCC would be designed to replace the judicial system, and provide efficient and equitable claims resolution.

FNEP [Section 6.2] sets out that “federal involvement or support to provinces during the recovery phase will include implementation and administration of federal post-disaster financial assistance programs under the Nuclear Liability Act; and public information related to these activities.” Natural Resources Canada (NRCan), the federal government department responsible for this legislation, would have the role of providing all necessary information on the NLA to the National Support and Coordination Structure.

APPENDIX 2

Ordonnance suisse relative à l'organisation d'intervention en cas d'augmentation de la radioactivité (OROIR)* du 26 juin 1991 (état le 16 février 1999)

Le Conseil fédéral suisse,

vu les articles 8, 2^e alinéa, 11 et 37 de la loi fédérale du 23 décembre 1959⁶ sur l'énergie atomique ; vu l'article 89 de la loi sur la protection civile⁷ ; vu l'article 147, 1^{er} alinéa, de l'organisation militaire⁸ (OM) ; vu l'article premier de la loi fédérale du 27 juin 1969⁹ sur les organes directeurs et le Conseil de la défense,

arrête :

Section 1 : Dispositions générales

Art. 1 But et champ d'application

1. La présente Ordonnance définit l'organisation d'intervention et décrit ses tâches lors d'un événement pouvant provoquer pour la population un danger dû à une augmentation de la radioactivité.
2. En cas de danger dû à une installation nucléaire suisse, l'Ordonnance du 28 novembre 1983¹⁰ sur la protection en cas d'urgence au voisinage des installations nucléaires est en outre applicable.

Art. 2¹¹ Obligation de collaborer

Les organes de la Confédération et des cantons ainsi que les exploitants des centrales nucléaires sont tenus de collaborer, dans le cadre prévu par l'organisation d'intervention en cas d'augmentation

* RO 1991 1459

6. RS 732.0

7. [RO 1962 1127, 1968 81, 1969 318 ch. III, 1971 751, 1978 50 570, 1985 1649, 1990 1882 appendice ch. 7, 1992 288 annexe ch. 22; RS 220 disp. fin. et trans. tit. X art. 6 ch. 10, 520.2 art. 22 al. 2 let. b, 520.3 art. 35, 833.1 annexe ch. 3. RS 520.1 art. 71]. Voir actuellement la loi du 17 juin 1994 (RS 520.1).

8. [RS 5 3; RO 1948 417, 1949 1595 art. 1 à 3, 5 let. a à d, 1952 335 342 art. 2, 1961 237, 1968 73 ch. I, III, 1970 46, 1975 11, 1979 114 art. 72 let. e, 1984 1324, 1990 1882, 1991 1412, 1992 288 annexe ch. 20 2392 ch. I 2, 1994 1622 art. 22 al. 2; RS 173.51 annexe ch. 5, 415.0 art. 15 ch. 3, 616.1 appendice ch. 10, 661 art. 48 al. 2 let. d, 833.1 annexe ch. 2, 921.0 art. 55 ch. 3. RS 510.10 annexe ch. 7]. Voir actuellement la LF sur l'armée et l'administration militaire (RS 510.10).

9. RS 501

10. RS 732.33

11. Nouvelle teneur selon le ch. II 42 de l'O du 1^{er} déc. 1997, en vigueur depuis le 1^{er} janv. 1998 (RO 1997 2779).

de la radioactivité (OIR). La collaboration de l'entreprise fédérale de télécommunications est réglée sur une base contractuelle.

Art. 3 Mesures de protection

1 Les mesures de protection à prendre à la suite d'un événement seront déterminées sur la base du Concept des mesures à prendre en fonction des doses (CMD figurant en annexe).

2 Les mesures de protection seront ordonnées par la Centrale nationale d'alarme (art. 15, 2^e al.) dans les cas d'extrême urgence et par le Conseil fédéral dans tous les autres cas.

Art. 4 Bases de calcul

À titre de préparation à une intervention, la Commission fédérale pour la protection atomique et chimique (COPAC) élabore, pour les différents événements, les bases pour le calcul des doses.

Section 2 : Structure de l'organisation d'intervention, lieux d'intervention

Art. 5 Organisation d'intervention en cas d'augmentation de la radioactivité (OIR)

1. L'OIR comprend :
 - a. le comité directeur radioactivité (CODRA) doté d'un état-major ;
 - b. la Centrale nationale d'alarme (CENAL) ;
 - c. des instances et des moyens supplémentaires, conformément à l'article 8.
2. En cas d'intervention, l'OIR est appuyée
 - a. lors de tous les événements, par la Centrale d'information de la Chancellerie fédérale ;
 - b. de plus, en cas de danger dû à des accidents d'installations nucléaires en Suisse et à l'étranger, par la Division principale de la sécurité des installations nucléaires (DSN) de l'Office fédéral de l'énergie (OFEN).

Art. 6 Comité directeur radioactivité (CODRA)

1. Font partie du CODRA :
 - a. le secrétaire général du Département fédéral de l'intérieur (DFI), (chef du CODRA) ;
 - b. le directeur de l'Office fédéral de la santé publique (OFSP), en qualité de premier suppléant ;
 - c. le directeur de l'OFEN, en qualité de deuxième suppléant ;
 - d. deux représentants des cantons, nommés par le DFI ;

- e. le directeur de la Division du droit international public ;
 - f. le directeur de l'Institut suisse de météorologie ;
 - g. le directeur de l'Office fédéral de la protection civile ;
 - h. le sous-chef de l'état-major Front du Groupement de l'état-major général ;
 - i. le directeur général des douanes ;
 - k. le directeur de l'Office fédéral de l'agriculture ;
 - l. le directeur de l'Office vétérinaire fédéral ;
 - m. le directeur de l'Office fédéral des transports ;
 - n. le vice-chancelier responsable de l'information ;
 - o. d'autres directeurs d'offices fédéraux désignés par le chef du CODRA dans la mesure où leur présence paraît nécessaire.
2. Dans la mesure où la suppléance n'est pas définie au 1^{er} alinéa, chaque membre du CODRA désigne son représentant ; les directeurs d'office désignent un membre de la direction.
3. Font partie de l'état-major CODRA :
- a. le chef d'état-major ;
 - b. son suppléant ;
 - c. d'autres personnes ;
- Le secrétaire général du DFI désigne les membres de l'état-major CODRA.
4. Sont à la disposition du CODRA
- a. la Commission fédérale pour la protection atomique et chimique (COPAC) ;
 - b. la Commission fédérale de surveillance de la radioactivité (CFSR) ;
 - c. la Commission fédérale de la protection contre les radiations (CFR) ;
 - d. la Commission fédérale de la sécurité des installations nucléaires (CSA).
5. Les membres et les experts de ces commissions seront nommés par le chef du CODRA d'entente avec les présidents concernés.
6. Pour l'accomplissement de mandats particuliers, le CODRA peut réunir, pour une durée déterminée, des spécialistes en groupes de travail. Il désigne à chaque fois le chef responsable.

7. Le CODRA peut, par l'intermédiaire du département compétent, demander au Conseil fédéral du personnel supplémentaire ainsi que l'attribution d'autres moyens civils et militaires.

Art. 7 Centrale nationale d'alarme (CENAL)

1. Dans le domaine de la radioactivité, la CENAL comprend :
 - a. le personnel de la Centrale nationale d'alarme désigné à cet effet ;
 - b. des spécialistes supplémentaires des milieux scientifiques et économiques, d'autres services de l'administration ainsi que des commissions COPAC, CFSR, CFR et CSA ;
 - c. du personnel d'assistance.
2. En règle générale, les spécialistes et le personnel d'assistance sont incorporés dans la fraction de l'état-major de l'armée (art. 19).

Art. 8 Instances et moyens supplémentaires

Sont réputés instances et moyens supplémentaires :

- a. le poste d'alarme pour la radioactivité (PA) de l'Institut suisse de météorologie ;
- b.¹² des services de l'administration fédérale et du Conseil des EPF ;
- c. l'organisation de prélèvement et de mesure ;
- d. des réseaux de transmission.

Art. 9 Organisation de prélèvement et de mesure

1. L'organisation de prélèvement et de mesure comprend :
 - a. des stations de mesure (postes de préalerte) pour la surveillance permanente de la radioactivité de l'air ;
 - b. des réseaux de stations de mesure pour la surveillance permanente de la contamination du territoire (tels que le Réseau automatique de mesure et d'alarme pour l'irradiation ambiante (NADAM) et le Réseau automatique de surveillance du débit de dose au voisinage des centrales nucléaires).
2. La CENAL peut compléter l'organisation de prélèvement et de mesure par :
 - a. le réseau de ses postes d'alerte atomique (PAT) en complément du réseau NADAM ;
 - b. des équipes mobiles de mesure disposant de véhicules de mesure et d'hélicoptères militaires ;

12. Nouvelle teneur selon le ch. II 18 de l'O du 25 nov. 1998, en vigueur depuis le 1^{er} janv. 1999 (RO 1999 704).

- c. des équipes de mesure du service de protection AC de l'armée ;
 - d. des laboratoires de mesure chargés de déterminer la contamination, en particulier celle des denrées alimentaires et des fourrages, ainsi que celle des eaux potables et d'abreuvement.
- 3. Le DFI veille, en collaboration avec les cantons, à ce que des organisations de prélèvement cantonales, des laboratoires cantonaux et privés de mesure ainsi que leurs organisations de mesure soient prêts à l'engagement ; les laboratoires de la Confédération sont à la disposition de l'OIR selon une réglementation particulière.
 - 4. En cas d'événement, l'organisation de prélèvement et de mesure sera engagée par la CENAL.

Art. 10 Information

Des spécialistes, recrutés en particulier au sein des offices fédéraux représentés au CODRA ainsi que dans les commissions fédérales intéressées (COPAC, CFSR, CFR, CSA), sont à la disposition de la centrale d'information pour les renseignements techniques.

Art. 11 Lieux d'engagement

- 1. Le CODRA, son état-major et ses experts s'établissent au même endroit que le Conseil fédéral.
- 2. Le lieu d'engagement de la CENAL est l'installation METALERT.

Section 3 : Tâches et compétences au sein de l'OIR

Art. 12 Chef de l'organisation d'intervention

- 1. Le chef de l'OIR est le secrétaire général du DFI.
- 2. Il supervise les travaux préparatoires et la coordination au sein de l'OIR et veille à ce que cette dernière soit prête à l'engagement. Il renseigne périodiquement, ou selon les besoins, le Conseil fédéral sur l'état des travaux.
- 3. Il veille à ce que la capacité fonctionnelle de l'OIR, ou de certaines de ses parties, soit contrôlée au cours d'exercices. Il peut, le cas échéant, et en accord avec les services compétents, faire participer la Centrale d'information, la DSN et d'autres services.

Art. 13 Comité directeur radioactivité (CODRA)

- 1. Le CODRA analyse la situation en s'appuyant sur les informations concernant la situation radiologique et son appréciation mises en permanence à sa disposition par la CENAL.
- 2. Il débat des mesures qui doivent être proposées au Conseil fédéral pour décision et assure leur coordination. Les propositions sont préparées par les départements compétents.
- 3. Le CODRA assure le contrôle de l'exécution des mesures décidées.

Art. 14 État-major CODRA

L'État-major CODRA assiste le chef du CODRA sur le plan administratif. Il lui revient notamment :

- a. de garantir la liaison, en particulier avec les offices fédéraux et les experts représentés au sein du CODRA ;
- b. de convoquer les membres du CODRA et ses experts en cas d'intervention ;
- c. d'informer à temps les offices fédéraux concernés par un événement.

Art. 15 Centrale nationale d'alarme (CENAL)

1. La CENAL garantit en permanence sa capacité d'engagement.
2. Elle agit de sa propre compétence jusqu'à ce que le CODRA soit prêt et ordonne dans les cas d'extrême urgence des mesures immédiates pour protéger la population (O du 3 déc. 1990¹³ sur la Centrale nationale d'alarme, art. 2, 1^{er} al.).
3. En cas d'événement, elle assume en particulier les tâches suivantes :
 - a. établir immédiatement la liaison avec le chef du CODRA ou son suppléant, le chef de l'état-major CODRA et la Centrale d'information ;
 - b. alerter les autorités de la Confédération et des cantons ainsi que des laboratoires spéciaux sélectionnés ;
 - c. informer directement les autorités et la population conformément à l'article 2, 1^{er} alinéa, de l'Ordonnance du 3 décembre 1990 sur la Centrale nationale d'alarme ;
 - d. avertir l'Agence internationale pour l'énergie atomique et les États voisins, conformément aux traités existants.
4. En cas d'événement radiologique, elle se procure les données et les informations nécessaires pour apprécier en permanence la situation et édicter des mesures de protection. Elle veille en permanence à l'exploitation des données.
5. Elle assure la liaison et le transfert de la situation au lieu d'engagement du CODRA et de la centrale d'information de la Chancellerie fédérale.

Art. 16 Centrale d'information de la Chancellerie fédérale

1. La Centrale d'information de la Chancellerie fédérale informe le Conseil fédéral, les cantons et la population, sous réserve de l'article 15, 3^e alinéa, lettre c.

13. RS 732.34

2. La manière d'informer en cas d'événement dans une centrale nucléaire suisse est réglée par la Chancellerie fédérale. Le règlement est établi en accord avec les services fédéraux intéressés. La Chancellerie peut conclure des conventions avec les cantons concernés et les exploitants de centrales nucléaires.

Art. 17 Offices fédéraux

1. Les offices fédéraux représentés au sein du CODRA prennent sur le plan interne les dispositions nécessaires pour maîtriser les tâches résultant d'une contamination radioactive.
2. Ils désignent un responsable et un suppléant chargé des préparatifs.
3. Ils assurent, en cas d'intervention, un service d'attente apte à remplir en tout temps les tâches supplémentaires du ressort de l'office.
4. Ils collaborent, dans le cadre prévu par l'OIR, à la préparation, à la formation et aux exercices.

Art. 18 Division principale de la sécurité des installations nucléaires (DSN)

1. La DSN au sein de l'OFEN veille, en application de l'Ordonnance du 28 novembre 1983¹⁴ sur la protection en cas d'urgence au voisinage des installations nucléaires, à une information rapide de la CENAL sur des événements survenus dans des installations nucléaires suisses et pouvant entraîner un danger pour l'environnement dû à la radioactivité.
2. La DSN établit des pronostics quant à l'évolution du dérangement à l'intérieur de l'installation, à une éventuelle dispersion de la radioactivité dans l'environnement et à ses conséquences. Elle juge de l'opportunité des mesures prises pour la protection du personnel et de l'environnement par l'exploitant de l'installation nucléaire.
3. La DSN conseille la CENAL quant aux mesures de protection à ordonner pour la population.
4. La DSN gère son propre service de permanence et assure une organisation interne d'intervention en cas d'urgence.

Art. 19¹⁵ État-Major Centrale nationale d'alarme du Conseil fédéral (EM CENAL)

En cas d'événement, la CENAL est renforcée par l'État-Major Centrale nationale d'alarme du Conseil fédéral, conformément à l'Ordonnance du 3 décembre 1990¹⁶ sur la Centrale nationale d'alarme.

14. RS 732.33

15. Nouvelle teneur selon l'art. 18 ch. 2 de l'O du 13 nov. 1996 relative à l'état-major Centrale nationale d'alarme du Conseil fédéral, en vigueur depuis le 1^{er} janv. 1997 (RS 732.35).

16. RS 732.34

Section 4 : Dispositions finales

Art. 20 Exécution

1. Les départements et les offices fédéraux participant à l'OIR édictent les directives nécessaires à la préparation et à l'intervention.
2. Le concept de service AC coordonné du 24 janvier 1990 constitue la directive pour la répartition des tâches entre la Confédération et les cantons.

Art. 21 Abrogation du droit en vigueur

L'Ordonnance du 15 avril 1987¹⁷ concernant l'organisation d'intervention en cas d'augmentation de la radioactivité est abrogée.

Art. 22 Modification du droit en vigueur

1. L'Ordonnance du 28 novembre 1983¹⁸ sur la protection en cas d'urgence au voisinage des installations nucléaires est modifiée comme il suit :

Art. 12, 1^{er} al., let. c

...

Art. 15, 2^e al., let. b

...

Art. 16

...

Art. 26, 1^{er} al., let. c

...

2. L'Ordonnance du 30 juin 1976¹⁹ concernant la protection contre les radiations est modifiée comme il suit :

Art. 1^{er}, 5^e al.

...

Art. 23 Entrée en vigueur

La présente Ordonnance entre en vigueur le 1^{er} juillet 1991.

Appendice
(art. 3, 1^{er} al.)

17. [RO 1987 652; 1991 68]

18. RS 732.33. Les modifications mentionnées ci-dessous sont insérées dans ladite Ordonnance.

19. [RO 1976 1573 1961, 1979 256, 1981 537, 1983 1964, 1984 876, 1987 652 art. 21 ch. 4, 1988 1561]

Concept des mesures à prendre en fonction des doses (CMD)

1. Le CMD sert de cadre à l'OIR pour ordonner des mesures de protection appropriées destinées à restreindre le risque pour la santé de la population après un événement provoquant une augmentation de la radioactivité.
2. Les grandeurs primaires sur la base desquelles sont décrétées les mesures de protection sont (en l'absence de mesures de protection), la dose attendue, économisée ou restante (dose individuelle efficace ou dose à la thyroïde de la population la plus exposée).

Parmi les autres facteurs de décision importants il faut relever notamment :

- le temps disponible ;
 - la praticabilité des mesures ;
 - les effets accessoires de certaines mesures ;
 - l'évolution ultérieure possible de la situation radiologique ;
 - la situation globale.
3. Pour chacune des mesures de protection entrant principalement en ligne de compte, un intervalle de doses est fixé qui comporte un seuil de dose inférieur (SDI) et un seuil de dose supérieur (SDS).
 - 3.1. Si la dose attendue est inférieure au SDI, la mesure n'est pas prise.
 - 3.2. Si la dose attendue est supérieure au SDS, la mesure de protection doit, autant que faire se peut de manière raisonnable, être prise.
 - 3.3. Si la dose attendue se situe entre le SDI et le SDS, la mesure de protection sera décidée ou non en fonction de critères d'optimisation.

Lors de l'optimisation, on tiendra compte surtout, en plus des effets accessoires éventuels de la mesure, de la dose que celle-ci a permis d'économiser.

Les mesures de protection ne se justifient que si elles sont plus utiles que nuisibles.

4. Les intervalles des doses sont les suivants :

Mesure de protection	Dose ¹	SDI	SDS
Séjour dans la maison	^H eff, ext + inh	1 mSv	10 mSv
Séjour à la cave/dans l'abri	^H eff, ext + inh	10 mSv	100 mSv
Évacuation, si le séjour protégé est inadéquat, ne peut être prolongé ou n'est plus acceptable	^H eff, ext + inh	100 mSv	500 mSv
Ingestion de tablettes d'iode	^H Sch, inh, iode	30 mSv	300 mSv
Restrictions dans la consommation d'aliments	^H eff, ing	1 mSv	20 mSv

1 eff, ext+inh : dose efficace due à l'irradiation externe et à l'inhalation

^H eff, ing : dose efficace due à l'ingestion

^H Sch, inh, iode : dose à la thyroïde, due à l'inhalation d'iode radioactif.

Par dose il faut entendre dans tous les cas la dose à attendre suite à une exposition ou incorporation, sans la mesure de protection entrant en ligne de compte, pendant la première année après l'événement.

5. L'intervalle des doses de 1 mSv à 500 mSv est valable d'une manière générale pour les mesures de protection non mentionnées dans le tableau ci-dessus, telles que par exemple, le déblaiement.
6. L'organisation d'intervention est responsable du calcul, du bilan et de la vérification des doses de la population. Des mesures sévères sont prises aussitôt après le début de l'événement ; elles pourront être atténuées par la suite, si la situation le permet. Les mesures sont vérifiées au titre d'un contrôle d'efficacité, corrélées dans le cadre du CMD avec les bilans de dose les plus récents et, là où c'est nécessaire et judicieux, adaptées aux nouvelles données.

APPENDIX 3

Formulaire suisse de présentation d'une demande en réparation d'un dommage nucléaire

Prière de laisser vide

À.....

Compagnie d'assurances

À.....

ANNONCE D'UN DOMMAGE LIÉ À UN ÉVÉNEMENT NUCLÉAIRE

À remettre d'ici au ²⁰

Conformément à la Loi fédérale du 18 mars 1983 sur la responsabilité civile en matière nucléaire, la, qui est assurée auprès de la compagnie, répond des dommages d'origine nucléaire liés à l'événement du survenu dans l'installation nucléaire de Si vous avez des prétentions à faire valoir pour cet événement, nous vous invitons à remplir l'annonce de dommage suivante (le cas échéant, avec l'assistance de votre employeur ou de votre médecin) et à l'envoyer à la compagnie d'assurances En remplissant complètement et à temps ce formulaire, vous faciliterez l'établissement de la preuve et contribuerez au traitement rapide de votre dossier.

PRIÈRE D'ENVOYER UN FORMULAIRE SÉPARÉ POUR CHACUNE DES PERSONNES AU NOM DESQUELLES VOUS FAITES VALOIR VOS PRÉTENTIONS.

SI VOUS AVEZ SUBI OU CRAIGNEZ DES ATTEINTES À LA SANTÉ, VOUS ÊTES PRIÉ(E) D'ANNONCER ÉGALEMENT LE DOMMAGE À VOTRE ASSUREUR-ACCIDENTS ET À VOTRE CAISSE-MALADIE.

20. Le Conseil fédéral a invité par publication toutes les personnes qui estiment avoir été victimes d'un dommage d'origine nucléaire à annoncer avant ce délai la date du dommage et l'endroit où elles l'auraient subi. Il suffit d'envoyer à temps ce formulaire à la compagnie d'assurances.

1. Données personnelles générales

Nom :

Prénom :

Rue :

NPA – Localité :

N° de téléphone professionnel : privé :

Date de naissance :

N° d'AVS :

Activité professionnelle :

En cas d'activité salariée,
nom et adresse de l'employeur :

Assurance-accidents obligatoire auprès de : (nom de la/des compagnie(s) d'assurances)

Nom de la caisse-maladie :

Autres assurances de personnes (accidents, maladie, vie) auprès de : (nom de la/des compagnie(s) d'assurances)

2. Lieu de séjour pendant ou depuis l'événement

Prière d'indiquer ci-dessous aussi précisément que possible votre lieu de séjour dans la période du au :

Adresse :	Locaux :	Jour et heure : De à.....	Témoin pouvant attester votre lieu de séjour
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

3. Mesures adoptées sur ordre des pouvoirs publics

Qu'avez-vous fait sur ordre des pouvoirs publics (p. ex. mesures de décontamination, séjour dans des locaux protégés) ?

Quelles mesures faudra-t-il prendre encore à l'avenir ?

4. Mesures prises de votre propre chef

Avez-vous pris sinon d'autres mesures pour vous protéger, vous-même, les personnes de qui vous répondez, ainsi que les biens matériels et les animaux ? Lesquelles ?

5. Dommages subis

5.1 Dommages physiques

Douleurs constatées :

Incapacité de travail du au

Médecin traitant (hôpital) :

Analyse sanguine effectuée depuis l'événement par

Autres traitements médicaux suivis depuis l'événement auprès de

LE/LA SOUSSIGNÉ(E) DÉLIE DU SECRET MÉDICAL LES MÉDECINS TRAITANTS ET LES
HÔPITAUX ET LES AUTORISE EXPRESSÉMENT À FOURNIR DES EXPLICATIONS À LA
COMPAGNIE D'ASSURANCES

5.2 Dommages matériels et préjudices de fortune

(Pour les exploitations agricoles et les établissements horticoles, prière de remplir le formulaire complémentaire *ad hoc*)

Biens matériels/animaux ayant subi un dommage, une irradiation ou une contamination radioactive :

Lieu où se trouvaient les biens matériels/animaux lors de l'événement :

Montant prévisible du dommage :

6. Source de renseignements supplémentaires :

7. Remarques :

Lieu, date

Signature

ANNEX II

VADE MECUM

I. The INEX Programme and the Gravelines Exercise

The INEX Programme (International Nuclear Emergency Exercise), carried out by the OECD Nuclear Energy Agency since 1993, responds to Member States' concerns to promote means of ensuring effective co-ordination between the various bodies which have a role to play in the event of a nuclear accident, in order to ensure rapid and efficient management of such a situation. This programme is composed of a series of exercises simulating nuclear accidents in which interested countries may participate.

The INEX Programme has now reached its third phase. For the first time, and at the suggestion of the French authorities, it has been planned to incorporate third party liability (TPL) aspects into the INEX 2000 Exercise. It is recalled that at the meeting of the NEA Nuclear Law Committee which took place in Paris on 19 and 20 October 2000, the members of the Committee expressed a keen interest in the decision to also examine TPL aspects within this exercise. The scientific/technical exercise, which took place on 22 and 23 May 2001 at the Gravelines nuclear power plant (NPP), situated near Dunkerque (France), is therefore to be followed by a Workshop on the Indemnification of Damage in the Event of a Nuclear Accident, which will be held in Paris from 26 to 28 November 2001.

The accident which was simulated at the Gravelines nuclear power plant was classified 4 on the INES Scale, and the technical exercise lasted 16 hours. An information centre also remained operational for a further 4 or 5 hours. The meteorological data used for the exercise were the real-time weather conditions prevailing at the time.

The scenario for the INEX exercise at Gravelines is reproduced in Appendix to this vade mecum.

The TPL Workshop of the INEX 2000 Exercise aims to test the mechanisms which apply to the compensation of potential victims of such an accident, both in France and in affected neighbouring countries. More particularly with regard to the NEA, it was also deemed interesting to examine the manner in which the Paris Convention (PC) on Third Party Liability in the Field of Nuclear Energy and the Brussels Supplementary Convention (BSC) would be applied.

It is proposed to organise the Workshop in three main stages:

- the alert phase: "grave and imminent danger of a nuclear accident";
- the accident phase: effective releases, possible damage; and

- the post-accident phase: putting into operation most of the procedures to identify damage and provide compensation.

A national emergency exercise which was carried out at the Golfech NPP (France) in 1999 provided an opportunity to test the organisational procedures at national level. Using this exercise as an example, it is proposed to examine the following aspects during the Gravelines exercise (those aspects which deal more particularly with international co-ordination are discussed *infra*):

Dissemination of information concerning the rights of potential victims and compensation claims

- identification of the competent bodies (state bodies – at national or local level? operator? insurers?) to diffuse information of a general nature to the public on the accident, the potential damage, the TPL regime in force and corresponding insurance cover, the role of the State;
- modes of transmission of this information (at local and/or national level, as well as in neighbouring countries);
- distribution of information on the manner in which claims for compensation can be made: places where forms may be obtained, deadlines for submission of claims, etc.

Compensation

- *establishing an inventory of victims*: how would the inventory of damage suffered be organised; how would potential victims be identified?
- *heads of damage subject to compensation*: (to persons, property, the environment) according to the applicable definition of nuclear damage;
- *organisation of the insurer*: alert (is there a contact centre permanently on call?), transmission of information, mobilisation at local and national levels, crisis centre, relations with the Prefecture;
- *distribution of emergency payments*: informing the population, lump sum amount, types of damage or situations taken into account, criteria for attribution of payments, use of a personal identity document to justify residence of victims in the zone affected, methods of payment;
- *existence or not of a system providing for an “initial estimate”* of the scope of damage (as is the case for example in Switzerland) which would allow the operator, the insurer and the State to establish a rough estimate of damage suffered (without, however, discriminating against compensation claims made within the fixed time-limit, e.g. three months after the accident);

- possible intervention of the Council of Ministers pursuant to Article 13 of the French Law;¹
- *compensation after expert analysis* (types of damage subject to compensation and the applicable procedure to request compensation; mobilisation at national and international levels of qualified experts (e.g. in the field of agriculture) to evaluate damage; existence or not of a system of priorities (France: yes); the manner in which the prescription period (France: ten years) is taken into account; methods of indemnification; claims handling costs; interface with the workers compensation regime;
- *litigation before the courts*: identifying the competent court etc.;
- *possibility of grouping compensation claims*: class actions;
- *proceedings taken out by victims resident abroad*.

The Golfech exercise was limited to procedures at national level. During the INEX 2000 Exercise, the objective is to widen this approach by examining how these procedures would be activated in neighbouring countries in the event of transboundary damage. Thus, the participation of neighbouring states would be particularly useful, and would also facilitate the examination of various questions concerning the mechanisms of application of the Paris and Brussels Convention. Another interesting area to explore would be the role to be played by states which have a different legal regime than that of the PC during this exercise.

Overview: The nuclear third party liability regime established by the Paris Convention (PC) and the Brussels Supplementary Convention (BSC)

First, the PC establishes the obligation to compensate victims in other Contracting Parties² without discrimination. Furthermore, Article 11 of the PC provides that the nature, form and extent of the compensation, as well as the equitable distribution thereof, shall be governed by the national law of the competent court. Thus, one of the first questions which arises is how to organise (a) the dissemination of information to the public in neighbouring countries on the compensation mechanisms in force in the “accident state”; (b) an inventory of potential victims, and compensation claims both at national level and in other countries; and (c) the distribution of emergency payments as a form of advance on a subsequent compensation award (before expert analysis). It would be particularly interesting to investigate the mechanisms which may exist in other countries where nationals of these countries suffer nuclear damage but the entity liable is a foreign operator. Would each State “victim” of the accident intervene in order to establish an inventory? N.B. Article 9(b) of the BSC provides that each Contracting Party shall ensure that victims may enforce their rights to compensation without having to bring separate proceedings depending on the origin of the funds. The question of identifying

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1. This provision states that if it appears that the amounts available are likely to be insufficient, a decree adopted in the Council of Ministers and published not later than six months after the date of the accident shall recognise this exceptional situation and specify the manner in which the available sums are to be disbursed equitably.
 2. The French legislation has not extended the application of the PC to damage suffered on the territory of non-Contracting states, and France has not yet ratified the 1988 Joint Protocol on the Application of the Paris and Vienna Conventions. However, the question of whether there exist bilateral reciprocity agreements in force with other neighbouring countries which are not party to the PC should be explored.

and mobilising the competent national authorities to put in place such procedures in neighbouring countries affected by the accident should also be explored.

Again pursuant to the PC, victims may exercise their right to compensation for nuclear damage directly against the insurer or other financial guarantor having provided the financial security, if the national legislation of the Installation State provides for such direct action (this is the case in France). Therefore, one may ask whether the organisation of the insurer would include the establishment of contact points abroad in the affected countries. This question also applies to the distribution of emergency payments abroad. A subsidiary question is that of the possibility for victims to group their compensation claims together in order to form a class action.

A question of particular importance is that of prescription periods. In France, the prescription period for submission of a compensation claim is set at ten years from the date of the accident, except where the victim knew, or should have known, of the damage and the identity of the liability operator – in which case the prescription period is reduced to three years.³ Would these rules pose a problem in respect of damage suffered in a different country? If a Decree were to be adopted in the Council of Ministers, would it contain provisions on such prescription periods?

Given that in the INEX 2000 Exercise, the competent court will be in France, how will the decisions of this court be transmitted to neighbouring countries, and how will their recognition and enforcement in those countries be controlled?

Those aspects which concern more particularly the application of the BSC are as follows:

- By what type of procedure would France inform the other Contracting Parties where it would appear that the damage may exceed 1.5 billion French francs (FRF)?
- The question of continuity of claims handling in relation to the decisions on and distribution of compensation awards from the operator, the Installation State, and the international fund. If the insurers are responsible for the handling of claims⁴ under the first compensation tier (operator tier), would that also be the case for the second tier under the BSC (i.e. the sum between 600 million FRF and 1.5 billion FRF provided from Installation State funds) and even the third tier (called “the international tier”, between 1.5 and 2.5 billion FRF)? If this is the case, would the power of decision in relation to loss adjustment remain with the insurer’s adjusters, and would their decisions be binding on the operator and the State? In a similar manner, what would be the terms of remuneration of the insurers for their work in handling the claims in respect of the second and third tiers?
- How would the French State “advance” the funds for the international tier, and if so, how would it be reimbursed by the countries concerned at a later stage? (on this subject, see Article 3(d) of the BSC which provides that there is no obligation for the *operator* to advance moneys for either the second or third tier until such funds have effectively been made available);

3. However, the French legislation provides that the French State shall compensate damage for which a compensation claim could not be submitted before the expiry of the ten-year period (this State cover is limited to a further five years maximum and is subject to a ceiling).

4. “Claims handling” is understood to mean the registration and payment of compensation claims.

- If a neighbouring State, party to the BSC, is entitled to a certain amount of compensation to indemnify its nationals victims of the accident, how can that State exercise such a right, particularly in relation to funds it is required to provide pursuant to the BSC?
- The question of interest and costs as set out in Article 7(g) of the PC and Article 3(f) of the BSC merits further examination: how would such interests and costs be charged to the operator, the French State or other BSC countries respectively?

II. National Emergency Organisation in France⁵

1. Introduction to emergency organisation

Given the safety principles on which reactor design is based and the preventative measures taken by *Électricité de France* (EDF) during reactor operation, the probability of a nuclear accident occurring in a nuclear power plant, while extremely low, cannot be considered to be zero. Accordingly, the operator must prepare for the possibility of such an occurrence by specifying an emergency organisation for approval by the Safety Authorities.

The emergency organisation put in place by EDF is described in the On-site Emergency Response Plan for each site, a mandatory safety document which the Safety Authorities have the right to review. The crisis organisation put in place by the public authorities, in close collaboration with EDF, is described in an Off-site Emergency Response Plan drawn up specifically for each site (Prefecture).

1.1 On-site Emergency Response Plan (*Plan d'urgence interne – PUI*)

The PUI is drawn up and implemented by the operator responsible for each nuclear facility. Its aim is to protect the personnel working in the nuclear plant in the event of an incident or accident and to limit the consequences of the accident outside the facility as much as possible. It is a practical document that should be easy to put into operation.

1.2 Off-site Emergency Response Plan (*Plan particulier d'intervention – PPI*)

The aim of the PPI is to:

- assess the impact of the accident on the population and the environment;
- specify the measures to be taken and deploy the required resources.

5. The following elements of information are found in the texts presented during the Joint International Nuclear Emergency Exercise INEX 2000 Preparatory Meeting, Dunkerque, France, 16-17 January 2001, in particular in the presentation by René Bourdin entitled “National Crisis Organisation in France – Emergency Preparedness and Response Plan for French Nuclear Power Plants”, and in the section of the Nuclear Safety Authority web site (www.asn.gouv.fr) entitled “In Case of Nuclear Emergency – Frequently-asked questions”.

The PPI, which is drawn up and implemented by the Prefect⁶ of the *département* in which the nuclear facility is located:

- provides an inventory of the resources placed at the Prefect's disposal (e.g. lists of doctors, hospitals, carriers);
- sets out procedures for the mobilisation of these resources (e.g. organisation chart for issuing alerts, information);
- provides instructions for the local population.

The PPI describes the roles of the various government departments involved, shows the stages at which various population groups have to be alerted, indicates the physical and human resources that would be deployed and links up with the PUI for which the nuclear operator concerned is responsible. The Nuclear Safety Authority supplies the Prefects with the basic technical information (risks resulting from the facilities, possible accidents, effects outside the site) they need for drawing up the PPIs.

The New Basis for the Off-Site Emergency Response Plan (PPI)

The process of analysis and reflection conducted in recent years by the Directorate for Defence and Civil Security (*Direction de la défense et de la sécurité civiles* – DDSC) in collaboration with the other administrations and partners concerned, together with the feedback from national exercises, concluded that a complete overhaul was required of the PPIs in force in the vicinity of nuclear installations.

The amendments made to the Circular of 12 April 2000 were aimed at improving the effectiveness of off-site emergency response plans. They attempt to provide an adequate response to the specific problems posed by the absence during the first few hours after a nuclear accident of technical expert advice at the local level, other than that provided by the operator, strong pressure from the media and the possibility of widespread dispersal of radioactivity.

Four basic amendments were made:

- Elimination of different levels within the off-site emergency response plan and the assumption that an automatic link existed between the off-site emergency response plan and the operator's emergency response plan. In fact, the off-site emergency response plan is only activated if action must be taken to protect the population. The initiation of the operator's on-site emergency response plan does not necessarily mean that there is a radiological risk; the operator may have decided to implement the plan in response to a

6. The Prefect, who is the representative of government at the level of the *département*, has particular responsibility for nuclear safety. He manages and oversees public inquiries and surveys prior to decisions by government over the siting of nuclear facilities; provides and co-ordinates contacts with representatives of the population, elected officials, the press and associations; ensures security outside the site and is responsible for protecting it against attack and public disorder. To carry out this task the Prefect can call upon the services of the Police (civilian authorities) and the *Gendarmerie nationale* (military authorities). In the event of an accident, the Prefect is responsible for organising the emergency services and takes the measures required in accordance with emergency plans drawn up beforehand.

conventional accident, injury to an employee or an incident affecting the nuclear portion of the installation but not entailing any risk of a radioactive release.

- Management of a nuclear emergency extends well beyond the scope of the PPI in that, even if the PUI is not activated because no action is required with regard to the population, a special emergency unit must nonetheless be put in place at the Prefecture as soon as the operator has issued an alert.
- Immediate response phase: until now, PPIs applicable to nuclear power plants were based on the major accident characterising such installations in which significant off-site releases only appear after a period of 24 hours or more. Account should now be taken of accident scenarios in which the chain of events is rapid but whose impacts are minimal compared with a major accident scenario.

In such situations a series of pre-determined and conservative measures are implemented with a view to informing and protecting the population against the threat of a rapid release of radioactivity.

This constitutes activation of the on-site emergency response plan in immediate response mode.

- Changes to take account of levels of emergency action for each different type of intervention (sheltering indoors, evacuation and administration of stable iodine), The Directorate-General for Health (DGS) has specified a single dose of exposure to ionising radiation for each emergency action level to replace the earlier ranges which were felt to introduce an element of uncertainty into the decision-making process.

2. General Organisational Structure for Nuclear Emergency Response

2.1. General information

Emergency organisation is designed to gain control over the accident i.e. to prevent it, in real time, from becoming more severe and to limit its impact in radiological terms.

At local level, emergency organisation, which completely replaces normal site organisation, must be operational within one hour. At national level, national emergency organisation must be operational at its premises within less than two hours.

Measures to protect the population

While the emergency plans drawn up by EDF and the public authorities are designed to respond to a very wide range of accidents, all accidents and their associated releases are limited by a “package accident” (“*accident envelope*”). The package accident upon which EDF and the public authorities base their plans consists of the complete meltdown of the reactor core with use of a sand filter after 24 hours.

Measures to protect the population have therefore been drawn up by the Directorate-General for Health (Circular of 10 March 2000) in accordance with international standards and divided into three specific levels of emergency action:

- instructing the population to take shelter indoors, if the forecast effective dose is greater than 10 mSv;
- evacuation, if the forecast effective dose is greater than 50 mSv;
- administration of stable iodine if there is a risk that the anticipated dose to the thyroid will be greater than 110 mSv.

Determination of forecast doses

- Forecast doses are those assumed to have been received (external irradiation) and ingested or inhaled (internal contamination) until control has been regained over releases to the environment.
- Forecast doses are defined as the individual doses likely to be received by everybody, and particularly those most sensitive to radiation, namely children and pregnant women.

2.2 Players involved in the emergency response system

Two main players are involved in responding to an emergency situation:

- The *operator of the facility* where the accident has occurred who must put in place an organisation and resources that will allow the accident to be controlled, assessed and its impact limited, to safeguard site personnel and to warn and regularly inform the public authorities.

This system is specified beforehand in the PUI.

- The *Prefect of the département* in which the facility taking action within the framework of the PPI is located. In performing this task, he is responsible for co-ordinating the resources mobilised under the plan. To this end he calls on local branches of government agencies [the Departmental Directorate for Health and Social Affairs (DDASS),⁷ the Departmental Directorate for Equipment (DDE),⁸ the Emergency Medical Aid Service (SAMU), Fire Brigade].

7. The DDASS represents the decentralised services of the Ministry for Social Affairs, Employment and Solidarity. The Departmental Director for Health and Social Affairs is responsible, under the authority of the Prefect (*Préfet*) of the Department, for the implementation of health, medico-social and social policies as established by the public authorities.

8. The DDE is a decentralised service of the Ministry for Equipment, Transport, Housing, Tourism and the Sea, placed under the authority of the Prefect (*Préfet*). This technical service is at the disposal both of the State to implement its policies and of the territorial communities (department, communes) in the fulfilment of their tasks.

Several public authorities are mobilised at national level, namely:

- The *Nuclear Safety Authority*, under the authority of the Minister responsible for Industry and the Minister responsible for the Environment: for major nuclear installations the authority is a group consisting of the Nuclear Installations Safety Directorate (*Direction de la Sûreté des installations nucléaires* – DSIN) and the nuclear divisions of the Regional Directorates of Industry, Research and the Environment (*Directions régionales de l'industrie, de la recherche et de l'environnement* – DRIRE). It performs three basic functions:
 - monitors the appropriateness of the actions undertaken by the operator, who retains full responsibility for operation of the unit where the accident has occurred;
 - advises the Prefect on the measures to take to protect the public;
 - provides information to the public, the media, the public authorities and foreign safety authorities.

The Nuclear Safety Authority provides specific expertise with the technical aid of the Institute for Protection and Nuclear Safety (*Institut de protection et de sûreté nucléaire* – IPSN).

- The *General Directorate for Health* (*Direction générale de la santé* – DGS), under the Ministry for Health, in charge of radiation protection, whose task is to provide the Prefect with information to aid in taking decisions regarding the measures to be taken to safeguard the health of the population against the anticipated consequences of radioactive releases.

The DGS is assisted by the Office for Protection against Ionising Radiation (*Office de protection contre les rayonnements ionisants* – OPRI) which has an emergency centre and the technical resources enabling it to perform the following three functions:

- provision of expertise in the field of radiation protection, in collaboration with the IPSN and the reactor operator;
 - monitoring of contamination of the environment through a network of beacons;
 - on-site assistance to provide measuring and radiation protection resources and monitor contamination of persons or property.
- The Directorate-General for Defence and Civil Security (*Direction de la défense et de la sécurité civiles* – DDSC), under the Ministry of the Interior, alerted by the Decision-making Aid and Operations Centre (*Centre opérationnel et d'aide à la décision* – COAD) which makes available and transfers to the Prefect, on request by the latter, back-up material and human resources.
- The General Secretariat of the Interministerial Committee on Nuclear Safety (*Secrétariat général du Comité interministériel de la sécurité nucléaire* – SGCISN),⁹ which is

9. The SGCISN, chaired by the Prime Minister, brings together the Ministers responsible for nuclear issues. It co-ordinates all actions relating to nuclear safety. Its general secretariat, a standing body, ensures that

responsible for keeping the President and the Prime Minister permanently informed, co-ordinating, when required, the actions taken by the ministries involved and collating and summarising information on the radiological emergency with a view to keeping other countries informed, in accordance with the international conventions signed to this effect.

Lastly, the *mayors* of the towns and villages within the area considered to be at risk in the PPI have a role to play in an emergency situation. To enable them to play their roles to the full in the event of an emergency, the Government obliges mayors to draw up and implement “local action plans” that provide for, organise and structure the measures taken to support the decisions made by the Prefect. These local action plans support and complement the PPI.

2.3 *Mobilisation in the field*

In his capacity as director of the emergency services, the Prefect of the *département* in which the facility is to be found is responsible for organising the action taken in the field in an accident situation. Once he has discussed the situation with the competent national authorities (especially the Nuclear Safety Authority) and been advised by them, he decides which action should be taken to protect the public from the consequences of an accident occurring in a nuclear facility (warning, sheltering, evacuation, taking of iodine tablets). If an accident occurs in a nuclear facility, the Prefect sets up an emergency response structure comprising:

- a decision-making centre, namely the Fixed Command Post (*Poste de commandement fixe* – PCF) which is:
 - installed at the Prefecture and managed by the Prefect or his representative;
 - responsible for the decisions to be taken to ensure the protection of the general public (evacuation, containment, distribution of iodine capsules);
 - a meeting point for managers from departmental services and representatives of EDF, the Nuclear Installations Safety Directorate and the Office for Protection against Ionising Radiation.
- an operations action centre, namely the Operations Command Post (*Poste de commandement opérationnel* – PCO) which:
 - is installed in the vicinity of the plant in which the accident has occurred and consists of representatives of the authorities at the level of the *département* and the mobile radiological response units (*Cellules mobiles d’intervention radiologique* – CMIR);
 - has responsibility for implementing environmental monitoring measures and measures to safeguard the population;
 - directs the actions of the mobile response teams made available to the Public Authorities on site.

the safety system is consistent and supervises interministerial actions (specification and implementation of doctrine).

III. Immediate Response Instructions (“Fiche Réflexe”) E.D.F.-R.A.C. Électricité (Assistance and Indemnification)¹⁰

1. The obligations of nuclear operators

The third party liability of French nuclear operators is governed by the Paris (29 July 1960) and Brussels (30 January 1963) International Conventions and the French Acts of 30 October 1968 and 16 June 1990 which channel the third party liability to the nuclear operator, without seeking to attribute fault or other responsibility.

These instruments oblige operators to have insurance or other financial security up to an amount of 600 million FRF per accident to indemnify and assist victims. Beyond this amount, the State assumes responsibility for an amount up to a total of 1.5 billion FRF per accident.

Finally, all States party to the BSC provide for a further tier of compensation up to 2.5 billion FRF per accident.

2. EDF’s action plan in the event of a nuclear emergency

Beyond the simple organisation of compensation, which could have corresponded to a minimalist interpretation of its role, EDF has established an action plan providing for *immediate assistance to the public*.

This assistance must be mobilised, whether in the event of a nuclear accident having caused radiological damage outside the nuclear installation or in the event of a serious and imminent threat of a nuclear accident which has led the administrative authority of the place of the accident to take measures affecting the public.

An action plan for indemnification is, of course, also in place, and is based on the evaluation of damage.

EDF has concluded a number of emergency management agreements with the AXA Corporate Solutions Insurance company which provide, *inter alia*, for the following measures :

- in the short term, an emergency assistance payment to be deducted from the final indemnification of damage suffered, along with psychological and medical assistance for the victims, beyond that already provided by the public authorities.
- in the medium and long term, indemnification of the damage caused by the accident.

3. Procedures

Procedures are the same, whether in the case of a “threat of a nuclear accident” or in the case of a veritable “nuclear accident”.

10. These Immediate Response Instructions are distributed to all French Prefectures with a view to their incorporation in the PPI .

From the activation of the PUI

EDF agents (*R.A.C.-Électricité*) who are on call at the National EDF PCD¹¹ notify AXA Management, which in turn notifies AXA Insurance (Regional) and AXA Assistance.

From the activation of the PPI by the Préfet¹²

EDF agents (*R.A.C.-Électricité*) at the National EDF PCD and AXA Management go to the Prefecture.

They assist communication and decision-making within the unit responsible for “monitoring the public and economic activities” under the control of the General Management of EDF and the National EDF PCD with which they remain constantly in contact.

Decision to evacuate taken by the Préfet

AXA Management orders its accident Inspector-Assessors and their assistants to go to the place(s) of evacuation. All of these operations are controlled by EDF.

The services of AXA co-ordinate the payment of emergency assistance payments with local bodies and organise the transport of assistance teams.

Those persons requesting psychological, medical and financial assistance are welcomed by AXA in the designated public building: town hall/post office/tax office (etc.), where they will receive assistance upon presentation of an identity document bearing an address and also their social security number or passport number for foreigners.

IV. Relevant Legal Instruments for the Workshop

International Conventions

- Convention of 26 September 1986 on Early Notification of a Nuclear Accident;
- Convention of 26 September 1986 on Assistance in the Case of a Nuclear Accident or Radiological Emergency;
- Vienna Convention of 21 May 1963 on Civil Liability for Nuclear Damage;
- Paris Convention of 29 July 1960 on Third Party Liability in the Field of Nuclear Energy;
- Brussels Convention of 31 January 1963 Supplementary to the Paris Convention;

11. PCD or *Poste de Commandement-Décision* is a Decisional Command Post, established by the operator, in order to ensure co-ordination with the public authorities at national level.

12. The National EDF PCD needs to know as soon as possible (through the Nuclear Electricity Production Centre (*Centre nucléaire de production d'électricité* – CNPE) that the PPI has been activated, as it will be the starting point for the subsequent compensation of damage suffered.

- Protocol of 12 September 1997 to Amend the Vienna Convention on Civil Liability for Nuclear Damage.

EC Legislation and Agreements

- EC Council Decision 87/600/Euratom on Community arrangements for the early exchange of information in the event of a radiological emergency;
- Special agreement between the European Union and Switzerland for exchange of information in the event of a nuclear accident;
- Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation;
- Commission Regulation (Euratom) No. 770/90 of 29 March 1990 laying down maximum permitted levels of radioactive contamination of feedingstuffs following a nuclear accident or any other case of radiological emergency;
- Council Regulation (Euratom) No. 3954/87 laying down maximum permitted levels of radioactive contamination in foodstuffs and animal feeding stuffs following a nuclear accident or any other case of radiological emergency.

Bilateral Agreements concluded by France with neighbouring countries on information exchange and assistance in the event of a nuclear accident

- 1977 Agreement with the Federal Republic of Germany on Mutual Assistance in the event of Catastrophes and Grave Disasters. 1981 Supplementary Agreement;
- 1987 Agreement with Switzerland on Mutual Assistance in the Event of Catastrophes and Serious Accidents;
- 1989 Agreement with Switzerland on Exchange of Information in the Event of an Incident or an Accident;
- 1981 Agreement with Belgium on Mutual Assistance in the Event of Catastrophes and Serious Accidents;
- 1983 Agreement with the United Kingdom on Exchange of Information in the Event of Radiological Emergencies;
- 1983 Agreement with Luxembourg on Exchange of Information in the Event of Radiological Emergencies.

French Legislation

Act No. 68-943 of 30 October 1968 on Third Party Liability in the Field of Nuclear Energy, as amended by Act No. 90-488 of 16 June 1990¹³

V. List of the Internet Sites of the Main Bodies and Organisations Active in the Nuclear Sector in France¹⁴

National Radioactive Waste Management Agency (ANDRA): www.andra.fr (English version available)

Nuclear Safety Authority (ASN): www.asn.gouv.fr

Atomic Energy Commission (CEA): www.cea.fr (English version available)

COGEMA: www.cogema.fr (English version available)

Électricité de France (EDF): www.edf.fr (English version available shortly)

Institute for Protection and Nuclear Safety (IPSN): www.ipsn.fr

Office for Protection against Ionising Radiation (OPRI): www.opri.fr

Directorate-General for Energy and Raw Materials (DGEMP):¹⁵ www.industrie.gouv.fr/energie

13. The text of this Act is available on the OECD Nuclear Energy Agency web site at the following address: <http://www.nea.fr/html/law/nlb/NLB-46-SUP.pdf>.

14. List from the Proceedings, Joint International Nuclear Emergency Exercise INEX 2000 Preparatory Meeting, Dunkerque, France, 16-17 January 2001, p. 18.

15. The Directorate-General for Energy and Raw Materials (*Direction générale de l'énergie et des matières premières* – DGEMP) is responsible for preparing and implementing governmental decisions regarding the nuclear sector, acting as supervisory body over the Atomic Energy Commission (*Commissariat à l'Énergie atomique* – CEA), the General Company for Nuclear Materials (*Compagnie générale des matières nucléaires* – COGEMA) and the National Radioactive Waste Management Agency (*Agence nationale pour la gestion des déchets radioactifs* – ANDRA), and participating in the monitoring of exports of sensitive raw materials.

VI. Dose Limits and Intervention Levels in the European Union

Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation

Article 9: Dose limits for exposed workers

1. The limit on effective dose for exposed workers shall be 100 millisieverts (mSv) in a consecutive five-year period, subject to a maximum effective dose of 50 mSv in any single year. Member States may decide an annual amount.
2. Without prejudice to Paragraph 1:
 - (a) the limit on equivalent dose for the lens of the eye shall be 150 mSv in a year;
 - (b) the limit on equivalent dose for the skin shall be 500 mSv in a year. This limit shall apply to the dose averaged over any area of 1 cm², regardless of the area exposed;
 - (c) the limit on equivalent dose for the hands, forearms, feet and ankles shall be 500 mSv in a year.

Article 13: Dose limits for members of the public

1. Without prejudice to Article 14, the dose limits for members of the public shall be as laid down in Paragraphs 2 and 3.
2. The limit for effective dose shall be 1 mSv in a year. However, in special circumstances, a higher effective dose may be authorised in a single year, provided that the average over five consecutive years does not exceed 1 mSv per year.
3. Without prejudice to Paragraph 2:
 - (a) the limit on equivalent dose for the lens of the eye shall be 15 mSv in a year;
 - (b) the limit on equivalent dose for the skin shall be 50 mSv in a year averaged over any 1 cm² area of skin, regardless of the area exposed.

Council Regulation (Euratom) No. 3954/87 of 22 December 1987 laying down maximum permitted levels of radioactive contamination of foodstuffs and of feedingstuffs following a nuclear accident or any other case of radiological emergency, as modified by Council Regulation (Euratom) No. 2218/89 of 18 July 1989

Article 6(1)

Foodstuffs or feedingstuffs not in compliance with the maximum permitted levels laid down in a Regulation adopted in accordance with Articles 2 or 3 shall not be placed on the market. For the

purposes of applying this Regulation, foodstuffs or feedingstuffs imported from third countries shall be considered to be placed on the market if, on the customs territory of the Community, they undergo a customs procedure other than a transit procedure.

Annex to Council Reg. 3954/87 – Maximum Permitted Levels for Foodstuffs and Feedingstuffs (Bq/kg or Bq.l)

	Baby foods	Dairy Produce	Other foodstuffs except minor foodstuffs	Liquid foodstuffs	Feedingstuffs
Isotopes of strontium, notably ^{90}Sr	75	125	750	125	
Isotopes of iodine notably ^{131}I	150	500	2000	500	
Alpha-emitting isotopes of plutonium and transplutonium elements, notably ^{239}Pu , ^{241}Am	1	20	80	20	
All other nuclides of half-life greater than 10 days, notably ^{134}Cs , ^{137}Cs	400	1 000	1 250	1 000	

Commission Regulation (Euratom) No. 770/90 of 29 March 1990 laying down maximum permitted levels of radioactive contamination of feedingstuffs following a nuclear accident or any other case of radiological emergency

Annex to Commission Reg. 770/90 – Maximum permitted levels of radioactive contamination (caesium-134 and caesium-137) of feedingstuffs

Animal	Bq/kg
Pigs	1 250
Poultry, lambs, calves	2 500
Other	5 000

APPENDIX

Scenario of the Accident Simulated at the Gravelines Nuclear Power Plant – 22 May 2001

Elements of the scenario

Technical scenario

On 22 May 2001, an accident was simulated at reactor No. 11 of the Gravelines nuclear power plant. The pace of the scenario was relatively slow, since the first releases of ionising radiation were registered 11 hours and 15 minutes after the accident began.

At 4.45 UTC,¹⁶ a small leak on the circuit for cooling the reactor resulted in the automatic shut-down of the reactor and the triggering of the emergency safety injection system. An electrical generator supplying a part of the emergency safeguard systems was also unavailable, as were the containment spray systems. The situation worsened as a result of the unavailability of the steam generator feed water pumps (+3 hours and 10 minutes after the event which triggered the accident), as the reactor was no longer cooled by these pumps but rather by the vaporisation of the water leaving the primary circuit. The failure of the high pressure safety injection system (+9 hours and 5 minutes) also contributed to this.

At 15.45 UTC, i.e. 11 hours after the accident began, the core started to be uncovered. Fifteen minutes later, i.e. at 16.00 UTC, core degradation led to the first releases. A partial core melt-down occurred between 16.20 UTC and 16.30 UTC. The recovery of the low pressure safety injection system in the core, as well as all emergency safety injection systems, meant that an acceptable safety level was attained once again at 20.00 UTC.

Weather conditions

The accident scenario is based on the real weather conditions on 22 May 2001. The weather conditions were fairly stable on that day: normal wind speed (speed between 7 and 9 metres/second); wind from north-east to south-west (scatter angle from 30° to 70°); no rain.

Classification of the accident on the INES scale

Classification of the accident on the INES scale was increased from level 2 (incident) to 4 (accident without significant off-site risk).

16. Co-ordinated Universal Time (UTC) is the international time standard. UTC is the current term for what was previously referred to as Greenwich Meridian Time (GMT).

Radiological consequences of the accident

Radiological consequences for the population

Prognosis during the pre-release phase

Within a radius of 1 km, the estimated effective dose is 30 mSv; the thyroid dose is 660 mSv.

Within a radius of 5 km, the estimated effective dose is 3 mSv; the thyroid dose is 40 mSv.

Diagnosis based on the real releases

Within a radius of 1 km, the calculated effective dose is 1.4 mSv; the thyroid dose is 3.1 mSv.

Within a radius of 5 km, the calculated effective dose is 0.009 mSv; the thyroid dose is 0.2 mSv.

Information on the dose limits and intervention levels

Pursuant to Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation, the effective dose limit for members of the public is 1 mSv per year.

In France, the intervention levels are as follows: if the forecast effective dose exceeds:

- 10 mSv, the population is instructed to shelter indoors;
- 50 mSv, evacuation is organised;
- 110 mSv to the thyroid, stable iodine is administered.

Consequences related to the commercialisation of food products

The contamination level for milk, at or above which commercialisation of this product is no longer permitted i.e. 500 Bq/l, was reached within a 5 km radius of the plant.

Protective measures taken

Protection of the personnel of the installation

419 persons were present on site when the accident occurred (this figure does not include outside workers).

The On-site Emergency Plan was activated at 5.00 UTC.

Some of the personnel were sent home at 12.30 UTC; approximately 200 persons remained on site.

At approximately 13.30 UTC, iodine tablets were distributed to personnel. At 16.00 UTC, they were ordered to take these tablets.

Protection of the population

The national emergency response structure was alerted of the situation at 5.20 UTC and was in full operation at local and national levels at 6.30 UTC.

The Off-site Emergency Plan was activated at 10.01 UTC.

At 12.50 UTC, the safety authority recommended that the prefecture evacuate the population. Evacuation was decided as a preventive measure within a radius of 5 km for the section under the wind at 14.15 UTC. Evacuation concerned 8 000 persons, including 4 500 school children and 500 disabled people. Evacuation commenced at 14.45 UTC. By 17.00 UTC, evacuation was completed: in addition to the 8 000 people in the municipalities concerned, 700 people from Pas-de-Calais, a neighbouring department, were also evacuated.

Co-operation with neighbouring countries

The authorities responsible for nuclear safety in Belgium and the United Kingdom were informed of this accident by the Nuclear Installations Safety Directorate (DSIN) at approximately 8.30 UTC.

Local authorities in France and the UK (in France, the *Sous-Préfecture de Dunkerque*) were also in contact with each other.

ANNEXE II

VADE-MECUM

I. Le programme INEX et l'exercice de Gravelines

Le programme INEX (Exercice international d'urgence nucléaire), mené par l'Agence de l'OCDE pour l'énergie nucléaire depuis 1993, répond au souci des pays membres de l'AEN de promouvoir les moyens d'assurer une coordination efficace entre les divers organismes qui devraient intervenir dans le cas d'un accident nucléaire, dans le but d'assurer une gestion rapide et efficace d'une telle situation. Ce programme prend la forme d'une série d'exercices de simulation d'accidents nucléaires ouverts à la participation des pays intéressés.

Le programme INEX a atteint désormais sa troisième phase. Pour la première fois, il a été prévu, sur la proposition des autorités françaises, d'incorporer un volet responsabilité civile nucléaire (RCN) dans l'Exercice INEX 2000. On rappellera que lors de la réunion du Comité du droit nucléaire de l'AEN, qui s'est tenue à Paris les 19 et 20 octobre 2000, les membres du Comité ont manifesté un vif intérêt pour que des questions relatives à la RCN soient également abordées dans le cadre de cet exercice. L'exercice technique/scientifique s'étant déroulé les 22 et 23 mai 2001 à la centrale nucléaire de Gravelines qui est située près de Dunkerque (France), celui-ci sera donc suivi d'un Atelier sur l'indemnisation des dommages en cas d'accident nucléaire qui se tiendra à Paris, du 26 au 28 novembre 2001.

L'accident simulé à la centrale de Gravelines a été classé 4 sur l'échelle INES et l'exercice technique a duré 16 heures. Une cellule d'information est en outre restée opérationnelle pendant encore 4 ou 5 heures après l'exercice technique. Les conditions météorologiques de l'exercice ont été celles qui existaient au moment de l'accident simulé.

Le scénario de l'exercice INEX de Gravelines est reproduit en appendice au présent vade-mecum.

L'Atelier RCN de l'exercice INEX 2000 vise à mettre à l'épreuve les mécanismes relatifs à la prise en charge et à l'indemnisation des victimes éventuelles d'un accident nucléaire, à la fois en France et dans les pays voisins affectés. Dans la perspective particulière de l'AEN, il a également paru qu'il serait intéressant de tester les conditions d'application de la Convention de Paris (CP) relative à la responsabilité civile dans le domaine de l'énergie nucléaire ainsi que la Convention Complémentaire de Bruxelles (CCB).

Il est proposé d'organiser l'Atelier selon trois phases principales :

- la phase d'alerte : « menace grave et imminente d'un accident nucléaire » ;
- la phase d'accident : rejets effectifs, dommages éventuels ;

- la phase post-accidentelle : la mise en œuvre de l'essentiel des procédures relatives à l'identification des dommages et à l'indemnisation.

Un exercice d'urgence de portée nationale qui a été mené auprès de la centrale nucléaire de Golfech (France), en 1999, a permis de tester les procédures d'organisation au niveau national. En s'inspirant de cet exercice, il est proposé d'examiner les éléments suivants dans le cadre de l'exercice de Gravelines (les éléments qui concernent plus particulièrement la coordination internationale sont traités plus loin) :

Dissémination de l'information concernant les droits des victimes potentielles et les demandes en réparation

- identification des organes responsables (pouvoirs publics – au niveau national ou local ? exploitant ? assureurs ?) pour la diffusion des informations générales au public concernant l'événement, les dommages éventuels, le régime RCN en vigueur ainsi que la couverture financière, le rôle de l'État ;
- moyens de cette transmission (au niveau local et/ou national, ainsi que dans les pays voisins) ;
- diffusion de l'information sur les démarches à entreprendre pour présenter une demande en réparation : les lieux où retirer les formulaires, les délais de soumission, etc.

Indemnisation

- *recensement des victimes* : comment sont organisés le recensement qualitatif et quantitatif des préjudices et l'identification des victimes potentielles ?
- *types de dommage indemnisable* (aux personnes, aux biens, à l'environnement) selon les définitions du dommage nucléaire applicables ;
- *réponse de l'assureur de l'exploitant* : alerte (astreinte permanente ?), transmission de l'information, mobilisation aux niveaux local et national, cellule de crise, relations avec la Préfecture ;
- *versement des aides de premier secours* : information de la population, montant de l'aide forfaitaire, types de dommages ou de situations pris en compte, critères d'attribution, utilisation d'un document d'identification personnelle pour justifier du domicile des victimes dans la zone concernée ; modalités de paiement ;
- *existence ou non d'un système de « première estimation »* de l'étendue du dommage (comme c'est le cas par exemple en Suisse) qui permettrait à l'exploitant, à l'assureur et à l'État de faire une estimation grossière du dommage (sans pour autant introduire de discrimination à l'égard des demandes d'indemnisation qui seraient introduites dans un délai à déterminer, par exemple trois mois après l'accident) ;

- *intervention éventuelle du Conseil des Ministres* en vertu de l'article 13 de la loi française¹ ;
- *indemnisation après expertise* (types de préjudices indemnifiables et procédure pour la demande d'indemnisation, mobilisation aux niveaux national et international des experts qualifiés (par exemple dans le domaine agricole) pour l'évaluation des dommages, existence ou non d'un système de priorités (France : oui), comment le délai de prescription (France : dix ans) est pris en compte ; modalités d'indemnisation ; coût du traitement des demandes (*claims handling costs*) ; interface avec le régime d'indemnisation des travailleurs ;
- *le cas des litiges* portés devant un tribunal : détermination du tribunal compétent etc. ;
- *possibilité de regrouper les demandes en réparation* : « *class actions* » ;
- *recours intentés par les victimes résidant à l'étranger*.

L'exercice de Golfech était limité aux procédures engagées au niveau national. Dans le cadre de l'exercice INEX 2000, l'objectif est d'élargir l'approche en étudiant la mise en œuvre de ces procédures dans les pays voisins dans l'hypothèse de dommages subis au-delà des frontières. Dans ces conditions, la participation des pays voisins du pays où a eu lieu l'accident serait spécialement utile et permettrait aussi d'aborder dans ce contexte diverses questions concernant les mécanismes d'application des Conventions de Paris et de Bruxelles. On pourrait également s'interroger sur le rôle que pourraient jouer les États dotés d'un régime juridique différent de celui de la CP dans cet exercice.

Rappel : Le régime de responsabilité civile nucléaire institué par la Convention de Paris (CP) et la Convention complémentaire de Bruxelles (CCB)

En premier lieu, la CP comporte l'obligation d'indemniser sans discrimination les victimes dans les autres Parties Contractantes². Ensuite, l'article 11 de la CP prévoit que la nature, la forme et l'étendue de la réparation, ainsi que la réparation équitable des indemnités sont régies par le droit national du tribunal compétent. Ainsi, l'une des premières questions qui se pose est celle de savoir comment organiser (a) l'information du public dans les pays voisins sur les modalités de réparation prévues dans le « pays de l'accident » ; (b) le recensement des victimes potentielles et l'inventaire des demandes en réparation tant au niveau national que dans les autres pays ; et (c) le paiement des aides de premier secours en tant qu'avance sur l'indemnisation (avant expertise). Il serait intéressant notamment de s'interroger sur les mécanismes qui peuvent exister dans d'autres pays lorsque les ressortissants de ces pays subissent des dommages nucléaires mais que le responsable de l'accident est un exploitant étranger. Est-ce qu'il y aurait une intervention de l'État dans chaque pays « victime » de l'accident afin de procéder à l'établissement de l'inventaire ? N.B. l'article 9(b) de la CCB qui prévoit

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1. Cette disposition prévoit que s'il apparaît que les montants d'indemnisation disponibles risquent d'être insuffisants, un décret pris en Conseil des Ministres et publié dans un délai de six mois après l'accident, constate cette situation exceptionnelle et fixe les modalités de répartition équitable des fonds.
 2. La législation française n'a pas prévu l'application de la CP aux dommages subis sur le territoire d'États non-contractants, et la France n'a pas encore ratifié le Protocole Commun de 1988 sur l'application des Conventions de Paris et de Vienne. Cependant, il convient de s'interroger sur l'existence ou non d'accords bilatéraux de réciprocité conclus par la France avec d'autres pays voisins qui ne sont pas Parties à la CP.

que chaque Partie Contractante fera en sorte que les victimes puissent faire valoir leur droit à réparation sans avoir à entamer les procédures différentes selon l'origine des fonds. La question de l'identification et de la mobilisation des autorités nationales compétentes pour la mise en œuvre de ces procédures dans les pays voisins touchés par l'accident mérite aussi d'être abordée.

Toujours aux termes de la CP, les victimes peuvent exercer leur droit à réparation pour un dommage nucléaire directement contre l'assureur ou toute autre personne ayant accordé une garantie financière, si la législation nationale de l'État de l'installation accorde ce droit d'action directe (ce qui est le cas en France). Ainsi, pourrait-on se demander si la mise en place de l'organisation de l'assurance comporterait l'établissement d'antennes à l'étranger dans les pays touchés. Cette question se pose également à l'égard du versement des aides de premier secours à l'étranger. Une question subsidiaire est celle de la possibilité pour les victimes de regrouper leur demandes en réparation afin de former une action collective.

Une question importante est celle des délais de prescription. En France, le délai de prescription pour l'introduction d'une demande en réparation est fixé à dix ans à compter de la date de l'accident, sauf si la victime a eu, ou aurait dû avoir, connaissance du dommage et de l'identité de l'exploitant responsable – dans ce cas les actions se prescrivent par trois ans³. Ces règles sont-elles susceptibles de poser un problème en ce qui concerne l'indemnisation des dommages subis dans d'autre pays ? Le décret éventuellement pris en Conseil des Ministres contiendra-t-il des dispositions à ce sujet ?

Sachant, dans l'hypothèse de l'exercice INEX 2000, que le tribunal compétent se situera en France, comment sera organisée la transmission des décisions de cette juridiction et le contrôle de leur reconnaissance et exécution dans les pays voisins ?

Les aspects qui concernent plus particulièrement l'application de la CCB sont les suivants :

- Par quelles procédures la France informera-t-elle les autres Parties Contractantes dès qu'il apparaît que les dommages sont susceptibles de dépasser 1,5 milliard de francs français (FRF) ?
- La continuité de gestion dans le règlement et la distribution des indemnisations au niveau exploitant, État de l'installation et fonds internationaux ? Si les assureurs sont logiquement chargés de la gestion⁴ et de la distribution de la première tranche d'indemnisation (tranche de l'exploitant), en sera-t-il de même pour la deuxième tranche au titre de la CCB (c'est-à-dire la somme entre 600 millions et 1,5 milliard FRF alimentée par les fonds de l'État de l'installation) et même la troisième tranche (dite « internationale », entre 1,5 milliard et 2,5 milliards FRF) ? Si c'est le cas, est-ce que le pouvoir de décision en ce qui concerne le « *loss adjustment* » demeure chez les « *adjusters* » de l'assureur et leurs décisions engagent-elles l'exploitant et l'État ? De même, quels seraient les termes de la rémunération des assureurs pour leur travail de gestion de la deuxième et troisième tranches ?
- Comment l'État français « fera-t-il l'avance » de la tranche internationale et comment, dans un deuxième temps, se fera-t-il rembourser par les pays concernés ? (à ce sujet, voir

3. Cependant, la législation française prévoit que l'État français indemnise les dommages dont la réparation n'a pu être demandée avant l'expiration de la période de dix ans (couverture étatique plafonnée et limitée à cinq ans en plus).

4. Par gestion, on entend l'enregistrement et le traitement des demandes en réparation.

l'article 3(d) de la CCB qui prévoit qu'il n'y a d'obligation pour *l'exploitant* de faire l'avance de la deuxième ou de la troisième tranche que dans la mesure où ces fonds ont été rendus disponibles)

- Si un État voisin, Partie à la CCB, a droit à un certain montant de réparation pour indemniser ses ressortissants victimes de l'accident, comment peut-il faire valoir ce droit, notamment par rapport aux fonds qu'il doit verser au titre de la tranche internationale de la CCB ?
- La question des intérêts et dépens visés à l'article 7(g) de la CP ainsi qu'à l'article 3(f) de la CCB mérite d'être explorée : comment ces fonds seront-ils pris en charge par l'exploitant, l'État français et les autres pays CCB respectivement ?

II. L'organisation nationale de crise en France⁵

1. Introduction à l'organisation de crise

Compte tenu des concepts de sûreté retenus lors de la conception des réacteurs et des mesures préventives prises par Électricité de France (EDF) au cours de leur exploitation, la probabilité d'un accident nucléaire dans une centrale est extrêmement faible mais ne peut être considérée comme nulle. En conséquence, l'exploitant doit se préparer à l'éventualité d'un tel événement à travers la définition d'une organisation de crise, qui doit recevoir l'approbation des Autorités de sûreté.

L'organisation de crise mise en place par EDF est décrite dans le Plan d'urgence interne (PUI) de chacun des sites, document de sûreté obligatoire sur lequel ont droit de regard les Autorités de sûreté. L'organisation de crise des pouvoirs publics, en relation étroite avec celle d'EDF, est décrite dans un Plan particulier d'intervention (PPI) spécifique à chaque site (Préfecture).

1.1 Plan d'urgence interne (PUI)

Le PUI est établi et mis en œuvre par l'exploitant responsable de chaque installation nucléaire. Il a pour objet d'une part de protéger le personnel travaillant sur le site nucléaire en cas d'accident, et d'autre part de limiter au maximum les conséquences de l'accident à l'extérieur du site nucléaire. C'est un document à vocation pratique et opérationnelle.

1.2 Plan particulier d'intervention (PPI)

Le PPI a pour objectif :

- l'évaluation des conséquences de l'accident pour la population et l'environnement ;

5. Les informations suivantes sont extraites des textes présentés lors de la réunion préparatoire à l'Exercice international d'urgence nucléaire commun INEX 2000, Dunkerque, France, 16-17 janvier 2001, en particulier de la présentation de René Bourdin intitulée « Organisation de crise en France – Plan d'urgence interne et plan particulier d'intervention pour les centrales nucléaires », et de la partie du site de l'Autorité de sûreté nucléaire (www.asn.gouv.fr) intitulée « En cas de crise nucléaire – La foire aux questions ».

- la définition des mesures à prendre et la mise en œuvre des moyens nécessaires.

Le PPI, établi et mis en œuvre par le Préfet⁶ du département dans lequel est implantée l'installation nucléaire :

- précise les moyens mis à disposition du Préfet (par exemple, liste des médecins, hôpitaux, transporteurs) ;
- définit les procédures pour la mise en œuvre de ces moyens (exemple, schéma de diffusion de l'alerte, de diffusion de l'information) ;
- donne les consignes destinées aux populations locales.

Le PPI précise les missions des différents services de l'État qui sont concernés, les schémas de diffusion de l'alerte des populations, les moyens matériels et humains qui seraient mis en œuvre et l'articulation avec le PUI dont la responsabilité appartient à l'exploitant nucléaire en cause. L'Autorité de sûreté nucléaire fournit aux Préfets les bases techniques (risques présentés par les installations, accidents possibles, effets à l'extérieur du site) qui leur permettent d'établir les PPI.

Les nouveaux fondements du PPI

Les réflexions menées depuis plusieurs années par la Direction de la défense et de la sécurité civiles (DDSC), en concertation avec les autres administrations et partenaires concernés ainsi que le retour d'expérience des exercices nationaux ont conduit à la nécessité d'une révision complète des PPI en vigueur autour des installations.

Les modifications apportées à la circulaire du 12 avril 2000 ont pour objectif d'améliorer l'efficacité du PPI. Elles s'efforcent de fournir une réponse adéquate aux spécificités d'une crise nucléaire que sont l'absence, pendant les toutes premières heures, d'une expertise technique au niveau local autre que celle de l'exploitant, une très forte pression médiatique et une emprise géographique éventuellement importante.

Quatre modifications de fond ont été apportées :

- Suppression des niveaux du PPI et du lien considéré comme automatique entre le PPI et le PUI de l'exploitant. En fait, il n'y a déclenchement du PPI que lorsqu'il y a lieu d'intervenir pour protéger les populations. En effet, le déclenchement du PUI par l'exploitant ne signifie pas nécessairement l'existence d'un risque radiologique. Ce dernier peut-être amené à prendre cette décision pour faire face à un sinistre classique, à un accident de personne ou même à un incident affectant la partie nucléaire de l'installation sans risque de rejet.

6. Mission générale du Préfet en matière de sûreté nucléaire : le Préfet, représentant de l'État au niveau local, est notamment en charge de la sûreté nucléaire : il dirige et surveille les enquêtes et investigations avant les décisions d'implantation d'un site nucléaire, il assure et coordonne le contact avec les représentants de la population, les élus, la presse et les associations ; il veille à la sécurité à l'extérieur du site et doit prévenir les agressions et les troubles à l'ordre public. Il dispose pour cela de la Police nationale (civil) et de la Gendarmerie nationale (militaire). En cas d'accident, c'est le Préfet qui dirige les secours, prend les mesures nécessaires et agit en fonction des plans établis à l'avance.

- La gestion d'une crise nucléaire déborde largement du seul cadre du PPI : en effet, même si le PPI n'est pas déclenché car aucune intervention vis-à-vis des populations ne s'avère nécessaire, une cellule spécifique de crise doit être mise en place à la Préfecture aussitôt que l'alerte a été donnée par l'exploitant.
- Mode réflexe : jusqu'à présent, les PPI s'appliquant aux centrales nucléaires étaient calibrés sur l'accident majeur caractéristique de ces installations dont les rejets significatifs à l'extérieur n'apparaissent qu'au terme de 24 heures ou plus. Il convient désormais de prendre également en compte des situations accidentelles à déroulement rapide mais aux conséquences minimales par rapport au scénario d'accident majeur.

Dans ce type de situation, est mis en œuvre un ensemble prédéterminé et conservatoire de mesures visant à informer et protéger la population contre une menace de rejet rapide.

C'est le déclenchement du PPI en mode réflexe.

- La prise en compte de niveaux d'intervention : pour chacune des interventions (mise à l'abri, évacuation et prise d'iode stable), la Direction générale de la santé (DGS) a défini une dose unique d'exposition aux rayonnements ionisants, en lieu et place des anciennes fourchettes de valeurs considérées comme source d'incertitude dans la prise de décision.

2. Organisation générale de la gestion d'une crise nucléaire

2.1 Informations générales

L'organisation de crise est conçue dans le but de maîtriser l'accident, c'est-à-dire prévenir en temps réel un développement plus grave de l'accident et en limiter les conséquences sur le plan radiologique.

Au niveau local, l'organisation de crise qui se substitue totalement à l'organisation habituelle du site se doit d'être opérationnelle sous une heure. Au niveau national, l'organisation nationale de crise doit d'être opérationnelle dans ses locaux en moins de deux heures.

Mesures de protection de la population

Les plans d'urgence tant d'EDF que des pouvoirs publics sont dimensionnés pour faire face à un spectre d'accident très large : néanmoins, l'ensemble des accidents et leurs rejets associés restent bornés par un « accident enveloppe ». Ce dernier, retenu par EDF et les pouvoirs publics, est l'accident de fusion complète du cœur du réacteur avec utilisation au bout de 24 heures du filtre à sable.

De ce fait, les mesures de protection des populations ont été définies en fonction des normes internationales et ont été précisées par la Direction générale de la santé (circulaire PPI du 10 mars 2000), selon trois niveaux d'intervention :

- la mise à l'abri, si la dose efficace prévisionnelle dépasse 10 mSv ;
- l'évacuation, si la dose efficace prévisionnelle dépasse 50 mSv ;

- l'administration d'iode stable lorsque la dose prévisionnelle à la thyroïde risque de dépasser 110 mSv.

Détermination des doses prévisionnelles

- Les doses prévisionnelles sont celles qui sont supposées reçues (irradiation externe) et engagées (contamination interne) jusqu'à la maîtrise des rejets dans l'environnement.
- Les doses prévisionnelles s'entendent comme des doses individuelles susceptibles d'être reçues par tous et notamment par les personnes les plus sensibles aux radiations, en particulier les enfants et les femmes enceintes.

2.2 *Acteurs engagés dans le système d'intervention en cas de situation d'urgence*

L'intervention en cas de situation d'urgence repose sur deux acteurs principaux :

- *L'exploitant de l'installation* à l'origine de l'accident qui doit mettre en œuvre une organisation et des moyens permettant de maîtriser l'accident, d'en évaluer et d'en limiter les conséquences, de protéger les personnes sur le site, d'alerter et d'informer régulièrement les autorités publiques.

Ce dispositif a été préalablement défini dans le PUI.

- *Le Préfet du département* où se trouve l'installation qui agit dans le cadre d'un PPI. À ce titre, il est responsable de la coordination des moyens engagés dans le PPI. Il s'entoure, à cet effet, des services déconcentrés de l'État (la Direction départementale des affaires sanitaires et sociales – DDASS⁷ ; la Direction départementale de l'équipement – DDE⁸ ; le Service d'aide médicale urgente – SAMU ; les pompiers).

Au plan national, plusieurs autorités publiques sont mobilisées, en particulier :

- *L'Autorité de sûreté nucléaire*, qui dépend du Ministre chargé de l'industrie et du Ministre chargé de l'environnement pour le contrôle de la sûreté des installations nucléaires : pour les installations nucléaires de base, il s'agit de l'ensemble composé de la Direction de la sûreté des installations nucléaires (DSIN) et des divisions nucléaires des Directions régionales de l'industrie, de la recherche et de l'environnement (DRIRE). Elle a trois missions principales :
 - contrôler le bien-fondé des actions entreprises par l'exploitant, celui-ci étant pleinement responsable de la conduite de l'installation accidentée ;

7. Les DDASS constituent les services déconcentrés du Ministère des Affaires Sociales, du Travail et de la Solidarité. Le Directeur départemental des affaires sanitaires et sociales est responsable, sous l'autorité du Préfet de département, de la mise en œuvre des politiques sanitaires, médico-sociales et sociales définies par les pouvoirs publics.

8. La DDE est un service déconcentré du Ministère de l'Équipement, des Transports, du Logement, du Tourisme et de la Mer, placé sous l'autorité du Préfet. C'est un service technique d'aménagement à la disposition à la fois de l'État pour conduire ses politiques, et des collectivités territoriales (département, communes...) pour les missions qu'elles lui confient.

- conseiller le Préfet sur les mesures de protection de la population à prendre ;
- diffuser l'information à l'attention du public et des médias, des pouvoirs publics et des organismes de sûreté étrangers.

L'Autorité de sûreté nucléaire met en place une expertise spécifique avec l'appui technique de l'Institut de protection et de sûreté nucléaire (IPSN).

- *La Direction générale de la santé (DGS)* du Ministère chargé de la santé, en charge de la radioprotection, qui a la mission de fournir au Préfet des éléments d'aide à la décision concernant les mesures à prendre pour assurer la protection sanitaire des personnes contre les conséquences prévisibles des rejets radioactifs.

La DGS agit avec l'aide de l'Office de protection contre les rayonnements ionisants (OPRI) qui dispose d'un centre de crise et de moyens techniques lui permettant d'assurer les trois missions suivantes:

- expertise dans le champ de la radioprotection, en liaison avec l'IPSN et l'exploitant nucléaire,
 - contrôle de la contamination de l'environnement par un réseau de balises,
 - intervention sur le terrain pour fournir des moyens de mesure et de radioprotection et assurer des contrôles de contamination de personnes ou d'objets.
- *La Direction de la défense et de la sécurité civiles (DDSC)*, du Ministère de l'Intérieur, alertée par le Centre opérationnel et d'aide à la décision (COAD) qui met à la disposition du Préfet et lui transfère, à sa demande, des moyens de renfort matériels et humains.
 - *Le Secrétariat général du Comité interministériel de la sécurité nucléaire (SGCISN)*⁹, qui est chargé d'assurer l'information permanente du Président de la République et du Premier ministre, la coordination, en tant que de besoin, de l'action des ministères concernés, et le recueil et la synthèse d'informations en vue d'assurer les notifications et informations prévues par les conventions internationales traitant de l'information des pays tiers en cas de situation d'urgence radiologique.

Enfin, les *maires* des communes situées dans le périmètre de risque retenu dans le PPI ont un rôle important à jouer en cas de crise nucléaire. Afin de jouer pleinement leur rôle en cas de crise, les pouvoirs publics engagent les maires à établir et mettre en œuvre des « plans communaux d'action » permettant de prévoir, d'organiser et de structurer les mesures d'accompagnement des décisions du Préfet. Les plans communaux d'action viennent renforcer et compléter le PPI.

9. Le SGCISN, présidé par le Premier ministre, réunit les ministres concernés par les problèmes nucléaires. Il coordonne les actions qui touchent à la sécurité nucléaire. Son secrétariat général, organisme permanent, veille à la cohérence du système de sécurité nucléaire et supervise l'action interministérielle (définition et application de la doctrine).

2.3 Intervention sur le terrain

Le Préfet du territoire sur lequel est établie l'installation, en qualité de directeur des opérations de secours, est le responsable de l'organisation de terrain en situation accidentelle. Après consultation et avis des organismes nationaux compétents (notamment l'Autorité de sûreté nucléaire), c'est lui qui décide des actions visant à protéger la population des conséquences d'un accident intervenant sur une installation nucléaire (alerte, mise à l'abri, évacuation, prise de comprimés d'iode). En cas d'accident sur une installation nucléaire, le Préfet met en place une structure de crise composée :

- d'un centre de décision : le Poste de Commandement Fixe (PCF) :
 - installé à la Préfecture, il est tenu par le Préfet ou par son représentant ;
 - il est responsable des décisions à prendre pour assurer la protection des populations (évacuation, confinement, distribution de pastilles d'iode) ;
 - il rassemble les responsables des services départementaux, des représentants d'EDF, de la Direction de la sûreté des installations nucléaires et de l'Office de protection contre les rayonnements ionisants.
- d'un centre d'action opérationnel : le Poste de Commandement opérationnel (PCO) :
 - installé à proximité de la centrale accidentée, le PCO est formé des représentants des services départementaux auxquels se joignent les Cellules mobiles d'intervention radiologique (CMIR) ;
 - il est chargé de la mise en œuvre des mesures de surveillance de l'environnement et des mesures de protection des populations ;
 - il dirige, dans ce but, les moyens d'intervention des Pouvoirs publics dans l'environnement du site.

III. Fiche réflexe E.D.F.-R.A.C. Électricité (Assistance et indemnisation)¹⁰

1. Les obligations des exploitants nucléaires

La responsabilité civile de l'exploitant nucléaire français est régie par les Conventions internationales de Paris (29 juillet 1960) et Bruxelles (31 janvier 1963) et les lois françaises des 30 octobre 1968 et 16 juin 1990 qui canalisent la responsabilité civile sur l'exploitant nucléaire, sans recherche de faute ou d'autres responsabilités.

Elles lui font obligation d'avoir une assurance, ou une autre garantie financière pour un montant s'élevant à 600 millions FRF par accident pour assister et indemniser les victimes. Au-delà, l'État prend le relais jusqu'à 1,5 milliard FRF par accident.

10. Cette fiche-réflexe est proposée dans toutes les Préfectures françaises en vue de son intégration dans les PPI.

Enfin, l'ensemble des États signataires de la CCB couvrent les dommages jusqu'à 2,5 milliards FRF par accident.

2. Le dispositif d'EDF en cas de crise nucléaire

Au-delà d'une simple organisation de l'indemnisation qui aurait pu correspondre à une approche minimaliste de son rôle, EDF a mis au point un dispositif *d'assistance immédiate aux populations*.

Cette assistance doit être activée, que ce soit en cas d'accident nucléaire ayant entraîné des dommages radiologiques hors de l'installation nucléaire ou en cas de menace grave et imminente d'accident nucléaire ayant conduit l'autorité administrative, dont relève le lieu de l'incident, à prendre des mesures affectant les populations.

Bien entendu, un dispositif d'indemnisation est aussi prévu, au fur et à mesure de l'évaluation des préjudices.

EDF a conclu un ensemble de conventions de gestion de crise auprès de la Compagnie AXA Corporate Solutions Assurance qui prévoit, entre autres, la mise en place de ces dispositifs :

- à court terme une indemnisation de première nécessité à valoir sur l'indemnisation ultérieure des préjudices réels et une assistance psychologique et médicale aux victimes, en appui des pouvoirs publics.
- à moyen et long terme l'indemnisation des préjudices causés par l'accident.

3. Les procédures

Les procédures sont les mêmes en cas de « menace d'accident nucléaire » ou en cas « d'accident nucléaire » proprement dit.

Dès le déclenchement du PUI

Les agents EDF (R.A.C.-Électricité) en astreinte au PCD-National EDF¹¹ alertent AXA Direction, qui à son tour alerte AXA Assurance (Régional) et AXA Assistance.

Dès le déclenchement du PPI par le Préfet¹²

Les agents EDF (R.A.C.-Électricité) au PCD-National EDF et AXA Direction se présentent à la Préfecture.

11. Le PCD est un poste de commandement-décision, mis en place par l'exploitant, pour assurer les liaisons avec les pouvoirs publics au niveau national.

12. Il importe pour EDF – PCD-National de savoir au plus tôt (par le canal du Centre nucléaire de production d'électricité – CNPE) que le PPI est déclenché, puisqu'il sera le point de départ de la prise en charge ultérieure des préjudices réels.

Ils apportent une aide à la communication et à la prise de décision au sein de la cellule « suivi de la population et des activités économiques » sous le contrôle de la Direction Générale d'EDF et du PCD-National d'EDF avec lesquels ils restent constamment en liaison.

Décision d'évacuation prise par le Préfet

AXA Direction ordonne à ses Inspecteurs Régleurs de sinistres et à ses assistants de se rendre sur le ou les lieu(x) d'évacuation. Toutes ces opérations se font sous le contrôle d'EDF.

Les services d'AXA coordonnent les versements d'indemnisation de première nécessité avec les acteurs locaux et organisent les mouvements des équipes d'assistance.

AXA reçoit les personnes faisant appel à cette assistance psychologique, médicale et financière dans *le lieu public retenu* : mairie / bureau de poste / perception, (etc.) et leur porte assistance sur présentation d'une pièce d'identité avec adresse et fourniture du numéro de sécurité sociale ou du numéro de passeport pour les étrangers.

IV. Actes juridiques pertinents dans le contexte de l'Atelier

Conventions internationales

- Convention sur la notification rapide d'un accident nucléaire du 26 septembre 1986.
- Convention sur l'assistance en cas d'accident nucléaire ou de situation d'urgence radiologique du 26 septembre 1986.
- Convention de Vienne relative à la responsabilité civile en matière de dommages nucléaires du 21 mai 1963.
- Convention de Paris sur la responsabilité civile dans le domaine de l'énergie nucléaire du 29 juillet 1960.
- Convention de Bruxelles complémentaire à la Convention de Paris du 31 janvier 1963.
- Protocole d'amendement de la Convention de Vienne relative à la responsabilité civile en matière de dommages nucléaires du 12 septembre 1997.

Législation et accords communautaires

- Décision du Conseil 87/600/Euratom du 14 décembre 1987 concernant des modalités communautaires en vue de l'échange rapide d'informations dans le cas d'une situation d'urgence radiologique.
- Accord spécial entre l'Union européenne et la Suisse concernant l'échange d'information en cas d'accident nucléaire.

- Directive 96/29/Euratom du Conseil du 13 mai 1996 fixant les normes de base relatives à la protection sanitaire de la population et des travailleurs contre les dangers résultant des rayonnements ionisants.
- Règlement (Euratom) n° 770/90 de la Commission, du 29 mars 1990, fixant les niveaux maximaux admissibles de contamination radioactive pour les aliments pour bétail après un accident nucléaire ou dans toute autre situation d'urgence radiologique.
- Règlement (Euratom) n° 3954/87 du Conseil du 22 décembre 1987 fixant les niveaux maximaux admissibles de contamination radioactive pour les denrées alimentaires et les aliments pour bétail après un accident nucléaire ou dans toute autre situation d'urgence radiologique.

Accords bilatéraux conclus par la France avec ses pays voisins relatifs à l'échange d'informations et l'assistance en cas d'accident nucléaire

- Accord de 1977 avec la République fédérale d'Allemagne sur l'assistance mutuelle en cas de catastrophes et de désastres graves. Accord supplémentaire de 1981.
- Accord de 1987 avec la Suisse sur l'assistance mutuelle en cas de catastrophe ou d'accident grave.
- Accord de 1989 avec la Suisse sur les échanges d'informations en cas d'incident ou d'accident radiologique.
- Convention de 1981 avec la Belgique sur l'assistance mutuelle en cas de catastrophes ou d'accidents graves.
- Accord de 1983 avec le Royaume-Uni relatif aux échanges d'informations en cas de situation d'urgence radiologique.
- Accord de 1983 avec le Luxembourg sur les échanges d'informations en cas d'incident pouvant avoir des conséquences radiologiques.

Législation française

Loi n° 68-943 du 30 octobre 1968 relative à la responsabilité civile dans le domaine de l'énergie nucléaire telle que modifiée par la Loi n° 90-488 du 16 juin 1990¹³

13. Le texte de la Loi est disponible à partir du site web de l'Agence de l'OCDE pour l'énergie nucléaire à l'adresse suivante : <http://www.nea.fr/html/law/nlbfr/NLB-46-SUP-FR.pdf>.

V. Liste des sites Internet des principaux organismes actifs dans le secteur nucléaire en France¹⁴

Agence nationale pour la gestion des déchets radioactifs (ANDRA) : www.andra.fr

Autorité de sûreté nucléaire : www.asn.gouv.fr

Commissariat à l'énergie atomique (CEA) : www.cea.fr

COGEMA : www.cogema.fr

Électricité de France (EDF) : www.edf.fr

Institut de protection et de sûreté nucléaire (IPSN) : www.ipsn.fr

Office de protection contre les rayonnements ionisants (OPRI) : www.opri.fr

Direction générale de l'énergie et des matières premières (DGEMP)¹⁵ : www.industrie.gouv.fr/energie

VI. Limites de dose et seuils d'intervention dans l'Union européenne

Directive 96/29/Euratom du Conseil du 13 mai 1996 fixant les normes de base relatives à la protection sanitaire de la population et des travailleurs contre les dangers résultant des rayonnements ionisants

Article 9: Limites de dose pour les travailleurs exposés

1. La dose efficace pour les travailleurs exposés est limitée à 100 mSv sur cinq années consécutives, à condition que la dose efficace ne dépasse pas 50 mSv au cours d'une année quelconque. Les États membres peuvent fixer une dose annuelle.
2. Sans préjudice du paragraphe 1 :
 - a) la limite de dose équivalente pour le cristallin est de 150 mSv par an ;
 - b) la limite de dose équivalente pour la peau est de 500 mSv par an. Cette limite s'applique à la dose moyenne sur toute surface de 1 cm², quelle que soit la surface exposée ;
 - c) la limite de dose équivalente pour les mains, les avant-bras, les pieds et les chevilles est de 500 mSv par an.

14. Liste extraite de *Proceedings, Joint International Nuclear Emergency Exercise INEX 2000 Preparatory Meeting, Dunkerque, France, 16-17 January 2001, p. 18.*

15. La DGEMP a la responsabilité d'élaborer et de mettre en œuvre les décisions gouvernementales relatives à la filière nucléaire, d'assurer la tutelle sur le Commissariat à l'énergie atomique (CEA), la Compagnie générale des matières nucléaires (COGEMA) et l'Agence nationale pour la gestion des déchets radioactifs (ANDRA), et enfin de participer au contrôle des exportations des matières premières sensibles.

Article 13: Limites de dose pour les personnes du public

1. Sans préjudice de l'article 14, les limites de dose à respecter pour les personnes du public sont celles fixées aux paragraphes 2 et 3.
2. La limite de dose efficace est de 1 mSv par an. Toutefois, dans des circonstances particulières, une valeur supérieure peut être autorisée pendant une année quelconque et pour autant que la moyenne sur cinq années consécutives ne dépasse pas 1 mSv par an.
3. Sans préjudice du paragraphe 2 :
 - a) la limite de dose équivalente pour le cristallin est de 15 mSv par an ;
 - b) la limite de dose équivalente pour la peau est de 50 mSv par an en valeur moyenne pour toute surface de 1 cm² de peau, quelle que soit la surface exposée.

Règlement (Euratom) n° 3954/87 du Conseil du 22 décembre 1987 fixant les niveaux maximaux admissibles de contamination radioactive pour les denrées alimentaires et les aliments pour bétail après un accident nucléaire ou dans toute autre situation d'urgence radiologique, modifié par le Règlement (Euratom) n° 2218/89 du Conseil du 18 juillet 1989

Article 6(1)

Les denrées alimentaires ou les aliments pour bétail dont la contamination dépasse les niveaux maximaux admissibles fixés par un règlement arrêté conformément à l'article 2 ou à l'article 3 ne peuvent pas être commercialisés.

Annexe au Règlement du Conseil n° 3954/87 – Niveaux maximaux admissibles pour les denrées alimentaires et les aliments pour bétail (Bq/kg ou Bq/l)

	Aliments pour nourrissons	Produits laitiers	Autres denrées alimentaires à l'exception de celles de moindre importance	Liquides destinés à la consommation	Aliments pour bétail
Isotopes de strontium, notamment ⁹⁰ Sr	75	125	750	125	
Isotopes d'iode, notamment ¹³¹ I	150	500	2 000	500	
Isotopes de plutonium et d'éléments transplutoniens à émission alpha, notamment ²³⁹ Pu et ²⁴¹ Am	1	20	80	20	
Tout autre nucléide à période radioactive supérieure à 10 jours, notamment ¹³⁴ Cs et ¹³⁷ Cs	400	1 000	1 250	1 000	

Règlement (Euratom) n° 770/90 de la Commission, du 29 mars 1990, fixant les niveaux maximaux admissibles de contamination radioactive pour les aliments pour bétail après un accident nucléaire ou dans toute autre situation d'urgence radiologique

Annexe au Règlement n° 770/90 de la Commission – Niveaux maximaux admissibles de contamination radioactive (césium-134 et césium-137) d'aliments pour bétail

Catégories d'animaux	Bq/kg
Porcs	1 250
Volaille, agneaux, veaux	2 500
Autres	5 000

APPENDICE

Scénario de l'accident simulé à la centrale nucléaire de Gravelines – 22 mai 2001

Éléments du scénario

Scénario technique

Le 22 mai 2001, un accident a été simulé sur le réacteur n° 11 de la centrale nucléaire de Gravelines. Le déroulement du scénario de l'accident est relativement lent puisque les premiers rejets de rayonnements ionisants seront enregistrés 11 heures et 15 minutes après le début de l'accident.

À 4h45 UTC¹⁶, une petite brèche sur le circuit servant au refroidissement du réacteur entraîne l'arrêt automatique du réacteur ainsi que la mise en service du système d'injection de sécurité. Un tableau électrique alimentant une partie des systèmes de sauvegarde s'avère en outre indisponible, ainsi que le dispositif d'aspersion de l'enceinte de confinement. La situation se dégrade par suite de l'indisponibilité des pompes du circuit d'alimentation en eau des générateurs de vapeur (+ 3 heures et 10 minutes après l'événement ayant déclenché l'accident), le refroidissement du réacteur n'étant plus assuré par celles-ci mais par la vaporisation de l'eau sortant du circuit primaire, ainsi qu'en raison de la perte du système d'injection de sécurité à haute pression (+ 9 heures et 5 minutes).

À 15h45 UTC, soit 11 heures après le début de l'accident, le cœur commence à être partiellement asséché. Quinze minutes plus tard, soit à 16h00 UTC, la dégradation du cœur entraîne un début de rejets. Une fusion partielle du cœur se produit de 16h20 UTC à 16h30 UTC. Le rétablissement du système d'injection sous basse pression dans le cœur, ainsi que de tous les systèmes d'injection de sécurité, permet le retour à un niveau de sûreté acceptable à 20h10 UTC.

Conditions météorologiques

Le scénario de l'accident est fondé sur les conditions météorologiques réelles du 22 mai 2001. Ce jour, les conditions météorologiques sont plutôt stables : vitesse du vent normale (vitesse variant entre 7 et 9 m/s) ; vent venant du nord-est en direction du sud-ouest (angle de diffusion variant de 30 à 70°) ; pas de pluie.

Classement de l'accident sur l'échelle INES

La classification de l'accident sur l'échelle INES a évolué du niveau 2 (incident) à 4 (accident sans risque significatif hors site).

16. Le temps universel coordonné (UTC) est la base légale internationale de l'heure. UTC est le terme actuel de ce qui était auparavant désigné comme le temps moyen de Greenwich (*Greenwich Meridian Time – GMT*).

Conséquences radiologiques de l'accident

Conséquences radiologiques sur la population

Estimation avant la phase de rejet

Dans un périmètre de 1 km, la dose efficace estimée est de 30 mSv ; la dose à la thyroïde est de 660 mSv.

Dans un périmètre de 5 km, la dose efficace estimée est de 3 mSv ; la dose à la thyroïde est de 40 mSv.

Calcul réel sur la base des rejets postulés

Dans un périmètre de 1 km, la dose efficace calculée est de 1,4 mSv ; la dose à la thyroïde est de 3,1 mSv.

Dans un périmètre de 5 km, la dose efficace calculée est de 0,009 mSv ; la dose à la thyroïde est de 0,2 mSv.

Rappel des limites de dose et des seuils d'intervention

Aux termes de la Directive 96/29/Euratom du Conseil du 13 mai 1996 fixant les normes de base relatives à la protection sanitaire de la population et des travailleurs contre les dangers résultant des rayonnements ionisants, la limite de dose efficace pour les personnes du public est de 1 mSv par an.

En France, les seuils d'intervention sont les suivants : si la dose efficace prévisionnelle dépasse :

- 10 mSv, il est procédé à une mise à l'abri ;
- 50 mSv, il est procédé à une évacuation ;
- 110 mSv à la thyroïde, il est procédé à l'administration d'iode stable.

Conséquences quant à la commercialisation des produits alimentaires

Le seuil de contamination du lait à partir duquel la commercialisation de ce produit n'est plus autorisée, soit 500 Bq/l, a été atteint dans le périmètre de 5 km autour de la centrale.

Mesures de protection prises

Protection du personnel de l'installation

419 personnes étaient présentes sur le site au moment de l'accident (ce chiffre ne tiendrait pas compte des travailleurs externes).

Le plan d'urgence interne a été activé à 5h00 UTC.

Une partie du personnel a été renvoyée chez elle à 12h30 UTC ; environ 200 personnes sont restées sur le site.

Vers 13h30 UTC, des comprimés d'iode ont été distribués au personnel. A 16h00 UTC, l'ordre a été donné de les ingérer.

Protection de la population

L'organisation nationale de crise a été alertée de la situation à 5h20 UTC et s'est déployée au niveaux local et national à 6h30 UTC.

Le plan particulier d'intervention a été activé à 10h01 UTC.

À 12h50 UTC, l'autorité de sûreté a recommandé à la préfecture d'évacuer la population. L'évacuation a été décidée à titre préventif dans un rayon de 5 km sous le vent à 14h15 UTC. L'évacuation a concerné 8 000 personnes, dont 4 500 étaient des écoliers et 500 des personnes handicapées. L'évacuation a commencé à 14h45 UTC. Vers 17h00, l'évacuation était terminée : outre les 8 000 personnes des communes concernées, 700 personnes du département du Pas-de-Calais, département voisin de celui du Nord, ont également été évacuées.

Coopération avec les pays voisins

Les Autorités chargées de la sûreté nucléaire de Belgique et du Royaume-Uni ont été informées de cet accident par la Direction de la sûreté des installations nucléaires (DSIN) vers 8h30 UTC.

Les autorités locales française (à savoir, la sous-préfecture de Dunkerque) et anglaise se sont également concertées.

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