INTERNATIONAL RELATIONS

CHAPTER 7

1 ASN INTERNATIONAL OBJECTIVES

The nuclear plant population regulated by the Nuclear Safety Authority (ASN) is one of the largest and most diverse in the world. ASN therefore aims to ensure that its nuclear and radiation protection regulatory activities constitute an international benchmark for good practice.

Article 9 of the law of 13 June 2006 on Transparency and Security in the Nuclear Field (TSN law), states that "ASN will send the government its proposals for defining the French position in international negotiations within its areas of competence" and that "at the request of the government, it will take part in representing France with international and community bodies and organisations competent in these fields". Finally, it states that "for implementation of international agreements or European Union regulations concerning radiological emergencies, ASN is competent to alert and inform the authorities of third party States or to receive alerts and information from them".

The TSN law therefore extensively confirmed the international duties of the DGSNR, as established by decree 2002-255 of 22 February 2002.

ASN international actions are guided by two cardinal rules, "to ensure that the principles of safety and radiation protection are taken into account and promoted" and "to share the fruits of its work and its experience". Its main objectives are therefore as follows:

- To develop information exchanges with its foreign counterparts concerning regulatory systems and practices, problems encountered in the field of nuclear safety and radiation protection, and the steps taken with a view to:
  - enhancing its approach;
  - improving its knowledge of how foreign nuclear safety and radiation protection authorities really work and learning lessons for its own operating methods;
  - and improving its position in technical discussions with the French licensees, as its arguments would be strengthened by practical knowledge of conditions abroad.

- To make known and explain the French approach and practices in the nuclear safety and radiation protection fields and provide information on measures taken to deal with problems encountered. This approach involves action in a number of areas:
  - to make known French positions on certain issues such as very low level waste, the creation of a radiation protection incident and accident classification scale, or the French policy of lowering the authorised limits for basic nuclear installation discharges;
  - to provide assistance to countries wishing to create or develop their own nuclear safety authority, such as the States of the ex-USSR, and certain emerging countries;
  - when requested, to help foreign nuclear safety authorities required to issue permits for nuclear equipment of French origin or design.

- To inform the French public on what is happening abroad.

- To inform foreign States of events that have happened in France and provide the countries concerned with all useful information about French nuclear facilities located close to their borders.

- To help ensure that changes in European and international rules and practices are based on the best practices, in particular by taking part in the think-tanks set up by the international bodies and in the drafting of texts by these bodies describing nuclear safety and radiation protection principles and practices.

- To play an active role in the work being done to harmonise nuclear safety and radiation protection principles and standards and to define community law.

- To implement the undertakings of the French government concerning nuclear safety and radiation protection, in particular within the framework of international agreements.

These objectives are pursued within the framework of bilateral agreements, but also through ASN participation in the work coordinated by international bodies such as the International Atomic Energy Agency (IAEA), the Organisation for Economic Cooperation and Development (OECD) and the European Union, as well as that being done by the nuclear regulators' associations.

Congresses and conferences are also prime opportunities for exchanges, in which ASN presents its approaches and its practices.

In order to meet these goals, ASN calls on the expertise of technical support organisations whenever necessary. The Institute for Radiation Protection and Nuclear Safety (IRSN) is the leading organisation of this type.

2 Multilateral relations

2 | 1

European Union

With the Treaty setting up the European atomic energy community (Euratom) and its derived law, and with the work done by the WENRA association, the European Union is today at the very heart of the regulatory work being done in the field of nuclear safety and radiation protection, and is among ASN top priorities.

2 | 1 | 1

The Euratom treaty

Since 1957, the Euratom Treaty has allowed harmonised European-wide development of a strict system of nuclear safety regulation (chapter 7) and radiation protection (chapter 3). In an order of 10 December 2002 (aff. C-29/99 Commission of European Communities against Council of the European Union), the European Court of Justice, ruling that no artificial boundary could be established between radiation protection and nuclear safety, recognised the principle of the existence of community competence in the field of nuclear safety, linked to chapter 3 of the treaty. ASN actions at a European level are in particular designed to help develop this new field of community competence.

2 | 1 | 2

The "Nuclear action plan"

On 30 January 2003, following the above-mentioned ruling by the European Court of Justice, the European Commission adopted two proposed directives, one defining general principles concerning installation safety, the other concerning the management of spent fuel and radioactive waste. These two texts, commonly referred to as the "nuclear package", could not however be adopted by the Council of the European Union, owing to opposition from several member States of the Union, who considered that these proposals did not really add significantly to improving nuclear safety.

In June 2004, the Council of the European Union adopted conclusions finding that there was no consensus on this subject and it recommended continuing with the work aimed at achieving progress in nuclear

safety harmonisation, similar to the work done by WENRA (see point 2.1.4). This is the "Nuclear action plan".

ASN, which believes a move towards harmonisation of nuclear safety principles and standards is required, thus played an active part in the activities of the ad hoc group created for implementation of this European action plan. With a view to achieving greater efficiency, three sub-groups were set up, each of which is responsible for dealing with a particular topic: safety of nuclear installations (SG 1), safety of spent fuel and radioactive waste management (SG 2) and decommissioning fund (SG 3). France was represented in each of the sub-groups and ASN more particularly participated in SG 1 and had the role of chairman and secretary of SG 2. The ad hoc group submitted its report to the atomic questions group on 13 December 2006. It concluded that it would be useful to set up a high-level safety Advisory Committee responsible for monitoring the group's recommendations and that there was a need to continue to examine the pertinence of a new community instrument in the field of nuclear safety. The German and Portuguese Chairs (1st and 2nd half of 2007) will be in charge of following up the work of the ad hoc group.

2 | 1 | 3

The European working groups

ASN also takes part in the work being done by the Euratom treaty committees and expert groups:
- scientific and technical committee (STC);
- article 31 experts group (basic radiation protection standards);
- article 35 experts group (checking and monitoring radioactivity in the environment);
- article 36 experts group (information concerning regulation of radioactivity in the environment);
- article 37 experts group (notifications concerning radioactive effluent discharges).

Finally, regular contacts with the European Commission (Directorate General for Transport and Energy - DG/TREN in particular) are a means of reviewing progress and upcoming regulatory work in the fields of nuclear safety and radiation protection: in particular transposition of directives and the workings of the Euratom Treaty committees.

2 | 1 | 4

The Western European Nuclear Regulators Association (WENRA)

The WENRA association was officially created in February 1999, the founder members being the heads of the nuclear safety authorities of Belgium, Finland, France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland and the United Kingdom. The Director General for nuclear safety and radiation protection in France was the first Chairman for a period of four years. Mrs Judith Melin (Sweden), who was chair from 2003 to 2006, has been succeeded by Mrs Dana Drabova from the Czech Republic.

Since 2003, the heads of the nuclear safety authorities of the seven "nuclear" countries (operating at least one nuclear reactor to generate electricity) who were candidates for accession to the European Union, that is Bulgaria, the Czech Republic, Hungary, Lithuania, Romania, Slovakia and Slovenia have become members of the association.

The objectives defined by the WENRA members when the association was created are:
- to provide the European Union with an independent capability for examining nuclear safety and regulations problems in the countries applying for membership of the European Union;
- to develop a common approach to nuclear safety and regulation, in particular within the European Union.

With regard to the first task, WENRA in October 2000 published a revised version of its report on safety in the seven nuclear countries applying for membership of the European Union. This report

contributed to the position adopted by the Council of the European Union and the recommendations sent by the Commission to these countries to enable them to attain the high level of nuclear safety required prior to their acceptance into the Union.

With regard to the second task it set for itself (harmonisation of national approaches to safety), WENRA created two working groups:
- one (under the control of the British nuclear safety authority) for nuclear power plants (see chapter 12);
- the other (under the control of ASN - until 2004 - and then the Czech safety authority) for management of spent fuel and radioactive waste, plus dismantling operations (see chapter 16).

In each of these fields, the groups began by defining the reference levels for each technical topic, based on the IAEA's most recent standards and on the most demanding approaches employed within the European Union (and therefore, for all practical purposes, in the world).

After an initial pilot study into harmonisation of nuclear reactor safety in the founding countries and having demonstrated the pertinence and effectiveness of the methodology chosen, a process to assess national practices against these reference levels was then developed.

In 2005, the members of the association were able to examine the conclusions of the working groups, which contain the results of the national practices assessment process. For nuclear power reactors, these results revealed that the harmonisation work undertaken in the past three years had progressed well. For spent fuel and radioactive waste management, this work is less well advanced and will be continued.

On 9 February 2006, the conclusions of the working groups were made public at a seminar held in Brussels with the various stakeholders in the sector (licensees, associations, etc.).

On the occasion of its meeting on 9 and 10 November 2006, the association examined the initial drafts for national action plans concerning nuclear power reactors which, for all technical areas in which differences had been identified, aimed to bring national practices into conformity with the reference levels defined in 2005.

The objective henceforth is to harmonise national practices by the year 2010.

ASN considers that all this work confirms the ability of WENRA to carry out a bottom-up process of nuclear safety harmonisation, in addition to any more general and wide-ranging top-down community initiatives (see points 2|1|1 and 2|1|2 above).

INRA and WENRA (point 2|5 below), which were created at the initiative of the Director General for nuclear safety and radiation protection, also constitute unique and irreplaceable opportunities for free and informal discussions between nuclear safety authority heads.

2 | 1 | 5

Assistance to the Eastern European Countries

The July 1992 G7 summit in Munich defined three priority areas for nuclear safety assistance to the eastern European countries:
- contribute to improving the operating safety of existing reactors;
- provide funding for short-term improvements to the least safe reactors;
- improve safety supervision organisation, making a clear distinction between the responsibilities of the different entities concerned and reinforcing the role and scope of local nuclear safety authorities.

Assistance programmes were set up by the European Commission to achieve these goals. They constitute the nuclear part of the PHARE programme (which is more particularly aimed at the coun-

tries applying for membership of the Union) and the TACIS programme (intended for countries of the former Soviet Union).

The European Commission set up the Regulatory Assistance Management Group (RAMG), comprising the nuclear safety and radiation protection authorities from the countries of the European Union, to advise it on assistance requests from the eastern European countries. The PHARE nuclear programmes continued in 2006 for the two candidates scheduled for entry on 1 January 2007: Bulgaria and Romania.

The nuclear safety authorities of the European Union take a direct part only in the third area defined in Munich, by providing their joint assistance to their eastern European counterparts.

ASN is pilot for the TACIS programmes in Ukraine and Kazakhstan. ASN is taking part in the 6th TACIS regulatory assistance programme for the Russian Federation (RF/RA/06) which should last until mid-2007.

As part of the PHARE nuclear programme, ASN organised a 3-week participation (August-September) by Bulgarian specialists involved in dismantling the Kozloduy plant, in two inspections at Chooz A and Brennilis. It is also worth noting that in September, ASN took part in a delegation of experts from the European Commission to look at the dismantling programme for the Bulgarian Kozloduy plant.

These actions are supplemented by other international technical assistance programmes in accordance with the resolutions adopted by the G7 to improve nuclear safety in the eastern European countries, and which are financed by contributions from donor States and the European Union.

ASN is a participant in the expert groups reporting to the EBRD (European Bank for Reconstruction and Development), responsible for managing multilateral funds to finance the following actions:

- delicensing of nuclear reactors in Bulgaria (Kozloduy 1 to 4), Lithuania (Ignalina 1 & 2), Slovakia (Bohunice V1 1 & 2) and Ukraine (Chernobyl 1 & 3);
- construction of a new sarcophagus for Chernobyl Unit 4, the origin of the April 1986 disaster and construction of interim storage and reprocessing installations respectively, for the fuel and waste still present on the site;
- dismantling of decommissioned Russian nuclear submarines and radiological clean-up of the Barents sea military bases.

Finally, with regard to nuclear safety, ASN advises the French delegation to the Nuclear Safety and Security Group (NSSG) of the G8 (G7 + Russian Federation). It in particular took part in meetings of this group in Moscow in February, June and November 2006.

ASN observes that significant progress has been achieved in the three priority areas defined by the G7:

- improvements have been made to in-service safety of reactors;
- some States (Bulgaria, Lithuania, Slovakia, Ukraine) have committed to final shutdown of the least safe reactors and have already shut some down in accordance with these commitments;
- the role and remit of the nuclear safety authorities have been reinforced and clarified in the European Union accession States.

The safety authorities of the States which joined the Union on 1 May 2004 have thus reached a level which, with a few exceptions, means that they no longer require assistance.

However, in the States of the ex-USSR, this key objective will not be reached for some time, owing to the profound changes it implies: adaptation of the structures of the State itself, change in mentality to admit the independence of the nuclear safety authorities and thus underpin their credibility, reinforcement of their status and the resources at their disposal.

2 | 2

The International Atomic Energy Agency (IAEA)

The IAEA is a United Nations organisation which, in October 2006, counted 142 member States. With respect to the areas of competence of ASN, the IAEA's activities chiefly consist in:

-organising discussion groups at different levels and preparing texts known as "Safety Standards", describing safety principles and practices which can then be used by Member States as a basis for national regulations.

Since the beginning of 1996, this activity has been regulated by the CSS (Commission on Safety Standards), comprising senior representatives of the regulatory authorities of twenty Member States, tasked with proposing standards to the Director General of the Agency. France is represented on this commission by a deputy director general of ASN, while the Director General for nuclear safety and radiation protection (now the Chairman of ASN) has chaired the commission since the beginning of 2005. This commission coordinates the activities of four committees entrusted with supervising the drafting of documents in four areas: NUSSC (NUclear Safety Standards Committee) for installations safety, RASSC (RAdiation Safety Standards Committee) for radiation protection, TRANSSC (TRANsport Safety Standards Committee) for the safe transport of radioactive materials and WASSC (WAste Safety Standards Committee) for safe radioactive waste management. France, represented by ASN, is present on each of these committees. It also takes part in the technical groups which draft these documents.

These "Safety Standards", approved by the CSS and published under the responsibility of the Director General of the IAEA, comprise three levels of documents: Safety Fundamentals, Safety Requirements and Safety Guides. In 2006, the CSS approved a single document presenting the fundamental principles for the four aspects of safety: installations safety, radiation protection, safe management of waste and safe transport. This document was adopted by the Council of Governors in September and should be published soon. It is the fruit of about ten years of work and will improve the consistency and transparency of the system.

-Setting up "services" made available to Member States and designed to give them opinions on specific safety-related aspects.

This category includes the OSART (Operational SAfety Review Team), IRRS (Integrated Regulatory Review Service), PROSPER (Peer Review of the effectiveness of the Operational Safety Performance Experience Review), TRANSAS (TRANsport Safety Appraisal Service) and RaSSIA (Radiation Safety and Security Infrastructure Appraisal) missions.

From 6 to 18 November 2006, ASN welcomed an IRRS mission which was to conduct a peer review of its entire reference system and its nuclear safety and radiation protection regulatory practices. This was the first complete IRRS audit of a major nuclear country. The mission's report, which is currently being finalised, will be made public on the ASN's website in English, the language in which it is being drafted.

From 27 November to 14 December, the Saint-Laurent-des-Eaux nuclear power plant received an OSART mission. Like all the other reports concerning OSART missions in France, the corresponding report will be published on the ASN's website in English. A preparatory meeting for the OSART mission scheduled for the Chinon nuclear power plant in 2007 was also held in November.

Finally, ASN takes part in the RaSSIA missions and in the regional radiation protection classes organised by the IAEA, the main targets being those countries with a French-speaking tradition. In 2006, two inspectors took part in classes dealing with regulatory licensing and inspection of radiation sources in Algeria (diagnostic and surgical radiology) and Madagascar (radiotherapy). Three inspectors took part in RaSSIA missions to audit the radiation protection regulatory authorities in Vietnam, Brazil and Algeria.

- Harmonisation of communication tools.

The French proposal for a radiation protection events classification scale led to intense international debate aimed at improving the international nuclear events scale (INES).

In the past, ASN played a central role in establishing the INES scale. It also played an active role in drafting the scale for classifying radioactive material transport incidents. France is one of the leading users of the INES scale when communicating about events occurring in its basic nuclear installations (BNIs) and during radioactive material transports.

Since 2002, ASN has been looking to develop a communication tool for dealing with radiation protection incidents. The existing INES scale was felt to be insufficient for communications dealing with exposure to ionising radiation, as its radiation protection classification criterion did not refer to the radiological risk, which is the basis of the current regulations. France therefore rekindled the international debate with a view to adding a radiation protection criterion to the INES scale so as to link the radiation exposure dose received to the radiation protection incident or accident gravity index.

The French proposal led to adoption by the Member States of the International Atomic Energy Agency (IAEA) of a new part of the INES scale concerning radiation protection incidents, which takes account of radioactive sources and shipments of radioactive materials. This new part, which includes the principle of the relationship between the radiological risk and the seriousness of the event, has been applicable in France since 1 January 2005 on an experimental basis.

Initially, France limited application of this new scale to BNIs and to transport. Broader application to medical, industrial and research facilities will then be envisaged.

During the course of 2007, the radiation protection part will be integrated into the new version of the INES scale user's guide, to create a new classification criterion based on the proven consequences of a nuclear event. This criterion will apply in the same way, regardless of the type of installation concerned, once a dose of radiation has been received in circumstances that were not planned. The aim is also to extend use of this criterion to classification of incidents occurring during exposure of patients for therapeutic purposes. Early 2008 should see the end of the experimental period and the beginning of routine application of the new INES scale.

Presentation by the ASN Chairman in Moscow at the conference organised by the IAEA and hosted by the Russian Government from 27 February to 3 March 2006

2 | 3

OECD's Nuclear Energy Agency (NEA)

The NEA, set up in 1958, comprises all the OECD States, except for New Zealand and Poland, or 29 countries. Its main objective is to promote co-operation between the governments of Member States for the development of nuclear energy as a reliable and environmentally and economically acceptable energy source.

Within the NEA, ASN takes part in the activities of the Committee on Nuclear Regulatory Activities (CNRA). At its two annual meetings, the subjects of the CNRA's debates included inspection practices.

ASN also takes part in the work of the Radioactive Waste Management Committee (RWMC) which brings together the nuclear safety authorities and organisations responsible for waste management.

In the field of radiation protection, ASN continued its participation in the Committee on Radiation Protection and Public Health (CRPPH).

Multinational Design Evaluation Program (MDEP)

The NEA also provides the secretarial services for the MDEP (Multinational Design Evaluation Program). This programme is a multinational initiative to develop innovative approaches to pooling the resources and know-how of the safety authorities who will have responsibility for regulatory assessment of new reactors.

This programme, which is built around safety, is a multinational cooperative forum working within the framework of power reactor safety cases and aimed at ensuring convergence and indeed implementation of safety standards. The ultimate goal of this programme is to improve protection of the public and the environment.

This programme comprises three phases:

- phase 1: this phase concerns reactors whose design requires certification by the American safety authority (NRC) and which are currently being examined by other nuclear safety authorities. For the time being, only the EPR is concerned and is the subject of a cooperative agreement between ASN and the Finnish safety authority (STUK) on the one hand, and the NRC on the other. A cooperation protocol was signed in June between the NRC and ASN;
- phase 2: conducted in parallel with phase 1. The purpose of this phase is to facilitate the safety analysis of the generation III and III + reactors. This is designed to achieve convergence of the safety objectives, criteria, codes and standards associated with analysis of the safety of a new reactor. This will also make it possible for one nuclear safety authority to rely on another safety authority to regulate manufacture of the reactor components;
- phase 3: this aims to implement the materials of phase 2 for analysis of the safety of the generation IV reactors.

2 | 4

The United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR)

The United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) was created in 1955. It examines all scientific data on radiation sources and the risks they represent for the environment and for health. The reports published by this scientific body, which constitute the international reference, cover subjects such as the hereditary effects of ionising radiation and the consequences of the Chernobyl accident.

This activity is supervised by the annual meeting of the national representations of the Member States, comprising high-level experts, and at which ASN is represented. The next UNSCEAR report on "the effects of ionising radiation on the immune system" was produced in collaboration with ASN and the Argentine nuclear safety authority.

At its 61st session, the General Assembly of the United Nations approved the scientific report of the 54th UNSCEAR session. This report approves the publication of the following summaries of the international literature:
A. Epidemiological studies of radiation and cancer
B. Epidemiological evaluation and dose response of diseases other than cancer
C. Non-targeted and delayed effects of exposure to ionizing radiation
D. Effects of ionizing radiation on the immune system
E. Sources-to-effects assessment for radon in homes and workplaces

2 | 5
The International Nuclear Regulators' Assocation (INRA)

The INRA association, which brings together the heads of the nuclear safety authorities of Germany, Canada, France, Japan, South Korea (since September 2006), Spain, Sweden, the United Kingdom and the USA, met in 2006 under the French chairmanship of the Director General for nuclear safety and radiation protection, in Paris in February and in Avignon in September.

Members of INRA and their assistants at the meeting organised by ASN in Avignon from 25 to 27 September 2006

Apart from the admission of the South Korean safety authority (Atomic Energy Bureau - Ministry of Science and Technology), decided on by the Association members at the February meeting, 2006 was an opportunity - under the chairmanship of the Director General for nuclear safety and radiation protection - to forge new collaborative ties between the INRA and the International Commission on Radiological Protection (ICRP). The INRA chairman invited the Chairman of the ICRP, Lars-Erik Holm (Sweden) to the Avignon meeting in September to share his thoughts with the Association's members concerning the ICRP's latest draft recommendations. The exchanges were fruitful and give every reason to hope for greater integration of nuclear safety and radiation protection issues.

At their two meetings, the INRA members also held open and constructive discussions on topical nuclear safety and radiation protection issues. They in particular looked in considerable detail at the question of radioactive waste management, at follow-up of the work of the two international conventions (see points 4|1 and 4|2 below) and at the future work of the association. The next INRA meetings will be held in Spain in 2007.

2 | 6

The Association of nuclear regulators of countries operating French designed nuclear power plants (FRAREG)

The FRAREG (FRAmatome REGulators) association was created in May 2000 at the inaugural meeting held in Cape Town at the invitation of the South African nuclear safety authority. It comprises the nuclear safety authorities of Belgium, France, the People's Republic of China, South Africa and South Korea.

Its mandate is to facilitate transfer of experience gained from regulation of the reactors designed and/or built by the same supplier and to enable the nuclear safety authorities to compare the methods they use to handle generic problems and evaluate the level of safety of the Framatome type reactors they regulate. There were no meetings in 2006 and after the 2005 meeting, the next meeting is scheduled for 2007.

3 Bilateral relations

ASN works with many countries within the framework of bilateral agreements signed at various levels:
- governmental agreements (Belgium, Germany, Luxembourg, Switzerland);
- administrative arrangements between ASN and its counterparts (about twenty).

3 | 1

Staff exchanges between ASN and its foreign counterparts

So far, the nuclear safety and radiation protection authorities concerned have been those of Belgium, Bulgaria, Canada, Germany, Ireland, Japan, Luxembourg, the People's Republic of China, South Africa, Spain, Switzerland, the United Kingdom and the United States of America.

Provision is made for several types of exchange:

- Very short-term actions (one to two days) offering our counterparts cross-inspections and joint emergency exercises: they involve inviting foreign inspectors to take part in inspections or emergency exercises performed by inspectors from the country concerned.

In 2006, a large share of the joint inspections concerned radiation protection: supervision of radioactive sources at the source producers with Belgian inspectors (AFCN and AVN); radiation protection of

workers during work in controlled zones in the Chinon and Tihange plants, again with Belgian inspectors; radiation protection of workers in companies carrying out or using industrial radiography, with British inspectors from the HSE/FOD (Health and Safety Executive, Field Operations Directorate) and in hospitals with British inspectors from the HSE/FOD or Swiss inspectors from the OFSP (*Office fédéral de la santé publique* - federal public health office). Other cross-inspections concerned reactors either in operation or being dismantled, with German inspectors from the Länder of Baden-Wurttemberg or Rhine-Palatinate, or fuel reprocessing installations at La Hague or Sellafield with British inspectors from the HSE/NII (Nuclear Installations Inspectorate). Finally, as part of the PHARE programme for assistance to eastern European countries, it should be noted that two inspections were carried out with Bulgarian inspectors from that country's nuclear safety authority (BNRA) on the Chooz plant and the Brennilis plant currently being dismantled.

- Short-term assignments (3 weeks to 3 months), aimed at studying a specific technical topic.

In 2006, ASN welcomed one delegation of this type: an inspector from the South-African National Nuclear Regulator (NNR) spent a month in Paris and in Bordeaux to work in particular on the question of modifications to reactors and regulation of their installation.

- Long-term exchanges (up to 3 years) in order to take part in the working of the foreign nuclear safety and radiation protection authority to gain an in-depth knowledge of it. Whenever possible, this type of exchange must naturally be reciprocal.

In 2006, a British inspector specialising in fuel cycle plants, who had first arrived in January 2003, completed his stay in Paris at the sub-directorate in charge of these questions. He in particular took part in inspections of the COGEMA La Hague installations and, at the end of his stay, submitted a number of observations following comparison of inspection practices in France and the United Kingdom.

At the end of 2006, a French inspector from the Lyons DSNR left for a three-year assignment with the British nuclear safety authority, where he will be working on the fuel cycle plants.

At the same time, another inspector from the Lyons DSNR went to the IAEA, where he will be working with the team in charge of organising the IRRS (Integrated Regulatory Review Service) missions.

These exchanges will continue to enhance ASN practices, using proven methods and good practices employed by our counterparts.

Furthermore, the experience acquired by ASN and its counterparts for nearly ten years now, shows that inspector exchange programmes are an important factor in energising bilateral relations between nuclear safety and radiation protection authorities.

3 | 2

Bilateral relations between ASN and its foreign counterparts

The countries and safety authorities with which ASN had the most frequent contact in 2006 included the following:

South Africa

Bilateral exchanges with the National Nuclear Regulator (NNR) continued through actions decided on at the previous management committee meeting in 2005.

An NNR inspector was received by ASN from 18 September to 13 October, mainly at the Bordeaux DSNR. This visit was an opportunity to demonstrate the ASN's working methods to its South-African colleague and more particularly the checks on modifications made to installations.

The meeting of the NNR-ASN management committee took place in Johannesburg on 10 and 11 October. This meeting clarified the needs of the NNR. The French delegation was able to visit the installations of NECSA (Nuclear Energy Corporation of South Africa, a research organisation equivalent to the French CEA), in particular the radionuclide fabrication facilities and the PBMR (Pebble Bed Modular Reactor) high-temperature reactor test loop.

Belgium

Relations with the Belgian federal nuclear regulatory agency (AFCN) cover all the ASN's areas of competence: safety, waste management, transports and radiation protection. On 24 January in Paris, the Director General for nuclear safety and radiation protection met his Belgian counterpart to discuss ongoing areas of cooperation.

The Franco-Belgian safety working group met on 9 June in Paris and 1 December in Brussels.

Canada

With a view to gaining a clearer idea of the organisation and operation of the ASN's counterpart organisations, the Director General for nuclear safety and radiation protection had a meeting in Ottawa on 18 August with the chair and first head of the CCSN (Canadian nuclear safety commission), with the secretary of the Commission and the manager of the legal services department.

This meeting, along with that at the NRC, provided a number of useful lessons for the future organisation of ASN.

Finland

In 2006, relations with the Finnish nuclear safety and radiation protection authority (Säteilyturvakeskus – STUK) were once again dominated by cooperation on the EPR project, as Finland is the first country to build a reactor of this type (see chapter 12). The Directorate for Nuclear Power Plants and the Directorate for Nuclear Pressure Vessels were thus able to add an outside point of view to the EPR reactor's safety assessment. Exchanges also took place concerning the safety of waste management.

Germany

In 2006, the Franco-German Commission on nuclear installation safety questions (Deutsch-Französische Kommission für Fragen der Sicherheit kerntechnischer Einrichtungen – DFK) met on 18 and 19 January in Colmar. The two delegations visited the Fessenheim plant. This visit focused on management of the seismic risk and the associated modifications. The DFK working groups also continued their activities in 2006.

On 7 September, the Director General for nuclear safety and radiation protection met his German counterpart in Bonn. These direct relations are to be continued on a long-term basis.

Japan

Like 2005, 2006 was marked by a continued high level of information exchanges with Japan. The demand for cooperation with France is strong and the Japanese authorities want to cooperate with ASN and their technical support organisation with IRSN.

Among the many meetings held, the Director General for nuclear safety and radiation protection took part in a presentation of the ASN's regulation methods on 12 January in Paris and a bilateral meeting with NISA (Nuclear and Industrial Safety Agency) on 28 and 29 September. In addition to the technical meetings, ASN also received delegations of Japanese journalists and members of parliament.

From 28 to 30 November, an ASN delegation went to Tokyo to present its working methods to a public consisting of staff from NISA and its technical support organisation the JNES (Japan Nuclear Energy Safety Organization).

Russia

In 2006, the Director General for nuclear safety and radiation protection met Mr Poulikovsky, his counterpart at the Russian nuclear safety authority (Rostekhnadzor), on two occasions. These meetings were an opportunity to review areas in which the two authorities wish to become involved and to discuss the difficulties encountered. A third meeting between the chairman of the new ASN and Mr Poulikovsky ushered in concrete cooperation between the two entities concerning IRRS missions.

Switzerland

The Franco-Swiss Commission met in Paris on 29 and 30 June. The exchanges concerned both power reactors and small-scale nuclear facilities. The Director General for nuclear safety and radiation protection, who led the French delegation and chaired the meeting, stressed the importance of developing cross-inspections to gain greater mutual knowledge of our organisations and our working methods. Discussions of incidents and accidents more particularly concerned the serious radiotherapy accidents. During the meetings, the delegates visited the armed forces radiological protection service (SPRA), particularly the radiation contamination victims treatment centre and the fixed and mobile laboratories.

The Franco-Swiss Commission's expert group on nuclear emergency management continued its exchanges in 2006.

United Kingdom

The annual meeting of nuclear safety authority heads from France and Britain (NII) was held in the United Kingdom on 10 August 2006. This meeting was an opportunity to discuss recent changes that have occurred in both countries. Of particular note in the United Kingdom was the July publication of the government's report on energy policy, which underlines the issue of security of supply and how building new nuclear power plants could contribute to this. This report also mentions the licensing process and the additional resources the safety authority would need to carry it out, were new installations actually to be built.

Another report on the long-term management of radioactive waste was published on 31 July by a high-level group of experts, the Committee on Radioactive Waste Management (CoRWM).

The desire to both consolidate and expand the relations between the NII and ASN was reiterated and led to signing of an agreement for long-term assignment of a French inspector to the NII and a British inspector to ASN.

United States

The intensity of the ties between ASN and the American Nuclear Regulatory Commission (NRC) reflects the close and trust-based cooperation between the two authorities.

In anticipation of the creation of the new French nuclear safety authority, the Director General for nuclear safety and radiation protection met the new chairman of the Nuclear Regulatory Commission, two Commissioners and the Services Director, on 16 August in Washington.

Mr Lacoste also met the Chairman and a member of the Defense Nuclear Facilities Safety Board, which is the body that advises the American Energy Secretary with regard to nuclear defence facilities under the responsibility of the Department of Energy (DOE).

A meeting was held on 7 December in Paris between the persons in charge of power reactors at ASN and the NRC.

4 International agreements

In the aftermath of the Chernobyl accident (26 April 1986), the international community negotiated a number of conventions designed to prevent accidents linked to the use of nuclear power and mitigate their consequences should they occur. These conventions are based on the principle of a voluntary commitment on the part of the States, who retain sole responsibility for the installations placed under their jurisdiction.

Two conventions deal with the prevention of nuclear accidents (Convention on Nuclear Safety and Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management), while two others deal with management of their consequences (Convention on early notification of a nuclear accident and Convention on assistance in the case of a nuclear accident or radiological emergency). France is a contracting party to these four conventions. The IAEA (see point 2|2 above) is the depositary of these conventions and provides the relevant secretarial services.

4|1

The Convention on Nuclear Safety

The Convention on Nuclear Safety concerns civil nuclear power reactors. It was adopted in June 1994 and France signed it in September 1994 with ratification in September 1995. The convention came into force on 24 October 1996. On 11 May 2006, it was ratified by 59 States (since March 2005, these include all the countries possessing power reactors) and signed by six others.

In ratifying the convention, the contracting parties agree to submit a report describing how they apply the fundamental principles of safety and good safety practices, which are the subject of the various articles of the convention. The reports from the contracting parties are examined during a review meeting at which each party may ask questions of the others.

The first three contracting parties review meetings were held in April 1999, April 2002 and April 2005.

The next meeting is scheduled for 2008. With ratification of the Convention by India, this will be the first time that all the countries operating nuclear power reactors compare their safety practices.

4|2

The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

The "Joint Convention", as it is often called, is the counterpart of the Convention on Nuclear Safety for spent fuel and radioactive waste management facilities. France signed it on 29 September 1997 (the first day it was open for signature at the IAEA's General Conference). The Joint Convention came into force on 18 June 2001.

The second review meeting was held from 15 to 24 May 2006, at the IAEA headquarters in Vienna, under the chairmanship of Mr André-Claude Lacoste, Director General for nuclear safety and radiation protection.

Forty-one contracting parties took part in the review meeting[1].

1. Germany, Argentina, Australia, Austria, Belarus, Belgium, Brasil, Bulgaria, Canada, Croatia, Denmark, Spain, Estonia, United States of America, Euratom (represented by the European Commission), Russia Federation, Finland, France, Greece, Hungary, Ireland, Iceland, Italy, Japan, Latvia, Lithuania, Luxemburg, Morocco, Norway, Netherlands, Poland, R.O.K., Czech Republic, Romania, United Kingdom, Slovakia, Slovenia, Sweden, Swiss, Ukraine et Uruguay. Eight contracting parties took part in the meeting for the first time.

The first part of this meeting was devoted to a presentation by the contracting parties of their reports drawn up as required by this Convention, with the second part being given over to a joint analysis of national situations. After this work, the contracting parties adopted a summary review report, which was made public.

Presentation of the French report

The presentation to the review meeting comprised an outline by the nuclear safety authority of the current regulations and another by the National Agency for Radioactive Waste Management (ANDRA) concerning the situation of its three waste disposal sites.

France described the progress of the projects that it had undertaken to develop at the first review meeting in 2003:
- the effective implementation of a national radioactive waste management plan;
- the implementation of disposal channels for all types of radioactive waste;
- studies to guarantee the same level of safety for mining residues and for other radioactive waste.

Following the presentation, the French delegation answered questions from the contracting parties. The debate was both open and fruitful.

Discussions on the national situations

Despite the great diversity of national situations, all the contracting parties agreed that the second review meeting clearly showed that progress had been achieved since the first review meeting in 2003.

The highlights of the discussions were as follows:
- the active commitment by the contracting parties to develop national strategies for spent fuel management and radioactive waste management;
- the importance of consulting the public and public acceptance when implementing national strategies;
- the emergence of the topic of "regional repositories";
- the question of financing management and dismantling strategies.

For the next review meeting, which will take place from 11 to 22 May 2009, the parties in particular decided to produce more specifically targeted, but still stand-alone reports, and to give more information in them about concrete action taken and the main issues raised at the 2nd meeting.

4 | 3

The Convention on early notification of a nuclear accident

The Convention on early notification of a nuclear accident came into force in October 1986, 6 months after the Chernobyl accident and in January 2006, it had been ratified by 98 States. The contracting parties agree to inform the international community as rapidly as possible of any accident leading to uncontrolled release into the environment of radioactive material likely to affect a neighbouring State. A system of communication between States is therefore coordinated by the IAEA and regular drills are held among the contracting parties. ASN is the competent national authority for France.

4 | 4

The Convention on assistance in the case of a nuclear accident or radiological emergency

The Convention on assistance in the case of a nuclear accident or radiological emergency came into force in February 1987 and at the end of 2006, it had been ratified by 96 States. Its purpose is to facilitate cooperation between countries if one of them were to be affected by an accident with radiological consequences. This Convention has already been used on several occasions for accidents due to

abandoned radioactive sources. Within this context, France's specialised services have already taken charge of treating irradiated victims. ASN is the competent national authority for France.

4 | 5 Other conventions related to nuclear safety

Other international conventions, the scope of which does not fall within the remit of ASN, may be linked to nuclear safety.

This is particularly the case with the Convention on the physical protection of nuclear material, the aim of which is to reinforce protection against malicious acts and the unlawful use of nuclear materials. This Convention, which came into force in February 1987, had by the end of September 2006 been ratified by 121 States, including France.

Additional information on these conventions may be obtained from the IAEA's website: www-ns.iaea.org/conventions/.

5 International conferences

ASN participation in international conferences offered opportunities for the exchange of extremely useful information concerning regulatory practices and the problems encountered in the field of nuclear safety, radioactive material transport, radioactive source safety, waste management and disposal and radiation protection.

Of these events, the following in particular should be mentioned:

- the conference organised by the IAEA and hosted by the Russian authorities under their chairmanship of the G8 in Moscow, from 27 February to 2 March, devoted to the effectiveness of nuclear regulatory systems. The debates dealt extensively with the integration of nuclear safety and security, with the goal of developing a "global culture of nuclear safety and radiation protection";

- the RIC conference organised by the NRC in Washington from 7 to 9 March, during which ASN presented its viewpoint on licensing of new reactors;

- the IAEA spent fuel conference in Vienna from 19 to 20 June. Mr Lacoste presented two papers at the conference, one on the Joint Convention and its implications and the other on the IAEA's safety standards;

- the 9th World Congress of Nuclear Medicine and Biology in Seoul, from 24 to 27 October.

Main ASN participations at international conferences in 2006

DATE	PLACE	OBJECT
27 February - 2 March	Moscow	IAEA – Conference on the efficiency of regulatory systems
7 - 9 March	Washington	RIC (Regulatory Information Conference)
13 - 16 March	Luxembourg	European Union – FISA 2006 Conference (conference on EU research and training in reactor systems)
16 - 19 May	Paris	IRPA congress (Association of European radiation protection societies)
18 - 19 June	Olkiluoto	"TOPSEAL" congress, organised by the ENS (European Nuclear Society), on the various issues raised by the management of radioactive waste
19 - 20 June	Vienna	IAEA – International conference on management of spent fuel from nuclear power reactors
24 - 27 October	Seoul	9th World Congress on Nuclear Medicine and Biology
13 - 14 November	Paris	Eurosafe congress
5 - 6 December	Vienna	IAEA – International Workshop on Issues for the Introduction of Nuclear Power
11 - 15 December	Athens	IAEA – Conference on the lessons learned from decommissioning of nuclear facilities and the safe termination of nuclear activities

6 OUTLOOK

International relations are important activities for ASN and are an efficient way of taking nuclear safety and radiation protection forward both in France and abroad.

They enable ASN and its counterparts to become more familiar with and gain a clearer understanding of their reciprocal operation and the problems that they face. They also enable assistance to be given to countries that wish to develop or improve their nuclear safety and radiation protection authorities.

They are also the driving force behind the necessary harmonisation of safety and radiation protection principles and standards.

ASN's goal in this field is to develop a common approach to nuclear safety, but without in any way compromising on the fundamental principle: nuclear safety must remain the number one priority. This is the purpose of the work by WENRA, whose public presentation of the results in February 2006 was a key step towards European harmonisation of national practices scheduled for 2010.

This is also the reason for ASN active participation in implementing the European Union's nuclear action plan.

WENRA and INRA are also irreplaceable forums for free and informal discussions between nuclear safety authority heads, enabling progress to be achieved on subjects of interest to their members. In 2006, under the chairmanship of the Director General for nuclear safety and radiation protection, the work of the INRA gave a boost to the integration of nuclear safety and radiation protection.

The European International Radiation Protection Association (IRPA) congress in Paris in May 2006 and participation in the organisation of the world nuclear medicine conference (October 2006, Seoul, South Korea) clearly reflect the importance ASN attaches to radiation protection.

ASN will further strengthen its international actions in the field of radiation protection, devoting particular attention to restructuring. Bilateral frameworks are few and far between and "multi-bilateral" frameworks (associations of radiation protection authority heads) still need to be created. This will lead ASN to expand the area of the existing arrangements or to sign new arrangements, depending on the organisation of the countries with which it wishes to develop cooperation, as radiation protection is not only an issue in States operating nuclear installations, but is relevant in all countries with modern medical, scientific or industrial activities.

Finally, ASN still attaches considerable importance to evaluation by its foreign peers. This is why:
- on the one hand, it regularly asks the IAEA for OSART missions (nuclear power plant operational safety review): by 2011, all EDF plants will have undergone an OSART review;
- on the other, and this is the first time that a safety authority from a major nuclear country has allowed this to happen, an IRRS audit was conducted in November 2006 by the IAEA to assess (see point 2|2) ASN nuclear safety and radiation protection reference framework and regulatory practices.

To conclude, ASN will continue to act as one of the leading safety authorities on the international stage, making sure that it shares its work with its peers and that nuclear safety and radiation protection principles are implemented worldwide. In order to consolidate its reference status, ASN will in particular continue its actions so that it can:
- fully assume its responsibilities in international radiation protection regulation;
- promote its organisation and practices for regulation of nuclear safety and radiation protection;
- submit to external assessment by its peers.