



ASN actions

Chapter 7

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ASN's international action is based on a framework defined by the TSN Act, Article 9 of which 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, the article states that "To implement international agreements or European Union regulations relative to radiological emergency situations, ASN is empowered to warn and inform the authorities of third States or to receive their warnings and information". These legislative arrangements underpin the legitimacy of ASN's international actions.

ASN thus devotes considerable resources to running cooperative actions, both within community and multilateral frameworks and through the bilateral relations it maintains with its foreign counterparts. The aim is to contribute to reinforcing safety culture and radiation protection worldwide. The aim is to achieve ASN recognition as an "international benchmark".

In this context, 2012 was a particularly busy year, with the international organisations aiming to learn the lessons from the accident that struck the Fukushima Daiichi nuclear power plant and share the initial analyses. ASN played a full role in this process, by initiating and then maintaining the momentum of the examination of the subject at European and international level. Over and above the technical considerations linked to the accident (protection against off-site hazards, strengthening the integrity of reactor containment, etc.), ASN adopted the following positions:

- there is a before and after Fukushima. Learning all the lessons from the Fukushima Daiichi NPP accident will take at least a decade in order to understand all the implications and technical consequences and all the social, organisational and human factors aspects;
- one of the risks would be to consider that the Fukushima accident was the result of a purely Japanese failing ("Japanese culture") making no attempt to dig deeper. The tendency of Governments to minimise what happened in Fukushima and the conclusions that need to be drawn for their own situation must be fought;
- there is also an absolute need for the independence of the national regulators to be reinforced internationally.

1 ASN OBJECTIVES IN EUROPE AND WORLDWIDE

1|1 Giving priority to Europe

Europe is the main focus of international action by ASN, which thus aims to contribute to building a Europe that is at the forefront of nuclear safety, the safe management of waste and spent fuel and radiation protection.

The stress tests exercise launched by the European Council on 24th and 25th March 2011 came to an end in 2012. It was an exercise conducted across the European Union (EU) and had a major international impact, involving all the stakeholders, not least the safety regulators, within a very short time-frame. With regard to nuclear safety, ASN is a participant in two institutions which in 2012 were the driving forces behind the performance of the stress tests in Europe: ENSREG and WENRA.

WENRA (Western European Nuclear Regulators' Association), an informal club, asked for experience to be shared by safety regulators with a view to harmonising safety rules for reactors and waste management facilities.

Since 2008, ENSREG has brought together the heads of the European Union's safety regulators and the European Commission. ENSREG worked hard to bring about a consensus on European directives concerning nuclear safety and then waste and spent fuel management, and was to have the satisfaction of seeing these texts adopted by the EU Council of Ministers, in June 2009 and July 2011 respectively.

This group, which reports directly to the EU, played a key role in the launch, organisation, completion and now follow-up of the stress tests.

In 2013, the European countries will be following the recommendations and suggestions adopted following the stress tests. Each country will have drawn up an action plan for implementing these recommendations and suggestions, under the responsibility of the national safety regulators.

1|2 Harmonisation of nuclear safety worldwide

Outside Europe, a large number of initiatives have been taken to harmonise nuclear safety practices and regulation.

Within IAEA, ASN actively participates in the work of the Commission on Safety Standards (CSS) which drafts international standards for the safety of nuclear installations, waste management, the transport of radioactive substances and radiation protection. Although not legally binding, these standards do constitute an international reference, including in Europe. They are also the documentary reference standards for the international audits overseen by the Agency. They in particular include the safety regulator audit missions (IRRS, Integrated Regulatory Review Service) the development of which is being supported by ASN, along with OSART (Operational Safety Review Team)

Table 1: Table of areas of competence of the main civil nuclear activity regulating authorities*

	Status			Activities						
Country/ Safety authority	Adminis- tration	Government agency	Independent agency	Safety of civil installations	Radiation protection			Safety (protection against vandalism and malicious acts)		Transport safety
					BNI	Other installations	Patients	Sources	Nuclear substances	
Europe										
Germany/ BMU + <i>Länder</i>	•			•	•	•	•	•	•	•
Belgium/ AFCN		•		•	•	•	•	•	•	•
Spain/ CSN			•	•	•	•	•	•	•	•
Finland/ STUK		•		•	•	•	•	•		•
France/ ASN			•	•	•	•	•	• ***		•
United Kingdom/ HSE/ND		•		•	•			•	•	•
Sweden/ SSM		•		•	•	•	•	•	•	•
Switzerland/ ENSI			•	•	•				•	•
Others countries										
Canada/ CCSN			•	•	•	•	•	•	•	•
China/ NNSA	•			•	•	•		•	•	•
Korea/ NSSC		•		•	•	•			•	•
United States/ NRC			•	•	•	•	•	•	•	• **
India/ AERB		•		•	•	•	•	•	•	•
Japan/ NRA	•		•	•	•	•	•	•	•	
Russia/ <i>Rostekhnadzor</i>	•			•	•			•	•	•
Ukraine/ SNRIU	•			•	•	•		•	•	•

*This table gives a schematic, simplified representation of ASN's current knowledge of the main areas of competence of the entities (administration, government agency or independent agency) responsible for regulating nuclear activities in the world's leading nuclear countries.

**Domestic transport only.

***The certification process is underway.

The European framework for nuclear safety and radiation protection

ENSREG (European Safety Regulators' Group) is a group of experts from the European Commission and the member States of the European Union, represented by national delegations, split evenly between heads of safety regulators and representatives of Ministries for the Environment or Energy (i.e. two representatives per delegation). Following a decision by the European Council (heads of States and Governments) in March 2007, a "High-Level Group" (HLG) on nuclear safety and waste management, subsequently renamed ENSREG, was created in 2008. It is an independent group which helps the European Commission establish the conditions for continuous improvement of nuclear safety and reach a common position in the fields of safety and the management of radioactive waste.

WENRA (Western European Nuclear Regulators Association) is a national regulators club created in 1999 at the initiative of Mr André-Claude Lacoste, then Chairman of the French nuclear safety regulator (ASN). This club originally comprised nine safety regulator heads and now comprises 17 member states and nine observer countries. Mr Lacoste was the first Chairman of WENRA for four years, before the post was held in turn by Mrs Judith Melin (Sweden) from 2003 to 2006, Mrs Dana Drabova (Czech Republic) from 2006 to 2009, Mr Jukka Laaksonen (Finland) from 2009 to 2011 and finally Mr Hans Wanner (Switzerland), since 2011.

Since 2003, at the time of their integration into the EU, the Heads of the safety regulators of Bulgaria, Hungary, Lithuania, Romania, Slovakia, Slovenia and the Czech Republic have been members of the association (even though WENRA retained its original name despite the geographical expansion towards the East of Europe).

The work achieved by **HERCA** (Heads of European Radiation Control Authorities) since it was created by André-Claude Lacoste in 2007, has been a driving force in creating a European **radiation protection hub**.

At present, 49 radiological protection competent authorities from 31 European countries¹ are members of HERCA. In certain countries, monitoring and regulation of radiation protection is entrusted to authorities other than those which look after nuclear safety.

Considerable progress has been achieved and since 2012, under the Chairmanship of Mr Magnusson, the head of the Icelandic radiation protection authority, HERCA has expanded its international role. The relations established by HERCA with about thirty stakeholders (IAEA, European Union, World Health Organisation, etc.) are proof of the growing interest in the work of the association. HERCA is also working with the European Commission on the harmonisation of radiation protection practices.

In the future, HERCA and WENRA should be working together more closely at the European level in the field of emergency preparedness.

Within the European bilateral framework, ASN has maintained close relations with the main countries equipped with nuclear reactors or wishing to acquire them, but also devoted itself to relations with countries such as Ireland and Norway, who are interested in radiation protection and emergency management issues in particular. It also focuses on relations with France's neighbours.

1. The 27 members of the European Union, plus Croatia, Iceland, Norway and Switzerland.

audits of nuclear power plants in operation. In 2012, IAEA was the main forum for debates on the inclusion of the first lessons learned from the Fukushima Daiichi accident in international standards and practices.

ASN also contributed to safety harmonisation work by actively participating in the Multinational Design Evaluation Programme (MDEP) the aim of which is joint evaluation of the design of new reactors. This programme was initiated in 2006 by ASN and the American Nuclear Regulatory Commission (NRC) and currently comprises 12 safety regulators. Its aim is eventual harmonisation of the safety objectives, codes and standards associated with the safety analysis of new reactors.

1.3 Assistance requests

In 2012, ASN continued to receive numerous requests from countries heavily engaged for the first time in a nuclear power programme as well as from countries simply wishing to know what actions would be necessary in the area of safety if they were to choose this energy source (setting up a regulatory infrastructure for monitoring of nuclear safety).

These queries were however fewer in number than in previous years, owing to the Fukushima Daiichi accident, which focused attention on nuclear safety and how to reinforce international safety standards.

In line with its policy, ASN responds to requests as part of its bilateral actions with the safety regulator of the country concerned, or via instruments that are either European (EU Instrument for Nuclear Safety Co-operation) or international

(IAEA's Regulatory Cooperation Forum). The purpose of this cooperation is to enable the countries concerned to acquire the safety culture and transparency that is essential for a national system of nuclear safety and radiation protection regulation.

2 EUROPEAN UNION AND MULTILATERAL RELATIONS

2|1 European Union

The Treaty setting up the European atomic energy community (Euratom) and the harmonised European laws, together with the work of WENRA, ENSREG and HERCA, today place the European Union at the very heart of regulatory work on nuclear safety and radiation protection. It is in particular due to the reactivity of WENRA and ENSREG that the EU was able to carry out the European stress tests exercise so efficiently on the NPPs. In general, ASN has always considered that a move towards European harmonisation of nuclear safety principles and standards was necessary, in order to complete the preparatory work done by the safety regulators and between safety regulators and licensees.

2|1|1 The Euratom Treaty

The Euratom Treaty enabled harmonised European development of a strict system of regulation of nuclear safety (chapter 7) and radiation protection (chapter 3). In an order dated 10th December 2002 (Case. C-29/99 Commission of European Communities versus EU Council), the EU Court of Justice, ruling that no artificial boundary could be created between radiation protection and nuclear safety, recognised the principle of the existence of community competence in the field of safety, as in the field of management of radioactive waste and spent fuel. ASN actions at the European level are aimed at developing this new field of community competence, although of course not forgetting radiation protection activities.

2|1|2 The European Nuclear Safety Regulators' Group (ENSREG)

ASN plays an active role in the work of ENSREG (see box) with the aim of reinforcing how nuclear safety and the safety of radioactive waste and spent fuel management are dealt with at a European level. Three working groups were created, devoted to the safety of installations, to the safe management of radioactive waste and of spent fuel, and to transparency in the nuclear sector.

The stress tests exercise, carried out under the auspices of ENSREG, resulted from the conclusions of the European Council of 24th and 25th March 2011 which, two weeks after the Fukushima accident, asked that European NPPs be subject to an additional assessment of their robustness in the light of the first lessons learned from the Fukushima disaster.

After the performance of these stress tests in the fifteen member States operating nuclear reactors, plus Switzerland and Ukraine, a peer review of the national reports was initiated. Between early January and late April 2012, each report was thus analysed by experts from other countries, under the supervision of a Council composed of Safety regulators, experts and the Commission. ASN was directly involved in the European stress tests exercise, through one of its Commissioners, Philippe Jamet, who coordinated the work of the peer review teams.



Meeting of ASN-EDF and a member of the European Commission, as part of the additional visits by experts mandated by ENSREG following the EU peer reviews, Tricastin - 19th-20th March 2012

Eighty experts from 24 European countries and the European Commission were to take part in the exercise, along with observers from non-European countries and the IAEA. After the analysis of the national reports, a two-week seminar was organised, during which each national safety regulator presented its analysis and answered numerous questions. As of March, this peer review continued with expert visits to each of the countries on which a nuclear site had been inspected.

The peer review exercise concluded with a period of feedback analysis, leading to recommendations and suggestions designed to improve the safety of the NPPs in Europe.

ENSREG adopted the final stress tests report on 25th April 2012 and on the same day published a joint declaration by the European Commission and the ENSREG members, underlining the quality of the exercise and, among other things, proposing follow-up of the peer review recommendations and suggestions.

The stress tests exercise is now over and has been replaced by a recommendations and suggestions follow-up plan. It is implemented nationally through the drafting of action plans under the responsibility of the safety regulators. These action plans were made public in late 2012. This follow-up exercise will lead to a seminar in 2013 for a peer review of the national action plans.

2012 was also marked by tense relations within ENSREG between the European Commission and the national regulators, in particular when the European Commission published its communication on the stress tests, on 4th October 2012. The European Commission had indeed decided to mention only a few of the conclusions of the European peer review report, in order to produce partial indicators, which was neither the aim of ENSREG, nor the spirit in which it had worked. ASN endorses the 22nd November 2012 letter from Mr Varjoranta, Chairman of ENSREG, sent to the European Energy Commissioner, Mr Oettinger, in which – on behalf of ENSREG – he stated that *“Building confidence between the Commission and ourselves within*

ENSREG is essential in providing a working platform for the future” (www.ensreg.eu)

2 | 3 The European Directive on the Safety of Nuclear Installations

ENSREG was a key mover behind the 2009 adoption in Europe of a first directive on the safety of nuclear facilities (transposition into the regulations of each State was scheduled for 2011).

The debate initiated in November 2008, under the French presidency of the EU, on a directive “establishing a Community framework for the nuclear safety of nuclear installations” (2009/71/EURATOM) continued until June 2009, when the Czech presidency of the EU concluded the debate on this important directive.

The EU therefore now has a regulatory framework for nuclear safety enshrined in community law. In particular, the directive obliges all EU member States (present and future) to develop a legislative framework for nuclear safety (Article 4) and to set up an independent regulatory authority (Article 5). It also defines the obligations of nuclear installation licensees (Article 6), stresses the question of the availability of skills and expertise (Article 7) and public information (Article 8). It further makes provision for a regular “peer review” system (Article 9) which, in accordance with the philosophy of nuclear safety, allows “continuous improvement” of practices in this field.

This regulatory text is of great importance in that it finally puts an end to an absurd situation in which there was no European legislation on nuclear safety even though the EU, with the Euratom Treaty, has enjoyed one of the most advanced nuclear legislations for more than 50 years and counts nearly 150 nuclear reactors within the borders of its 27 member states.

The text has the additional advantage of making its requirements legally binding within the legislation of the 27 member states. Under the mandate given by the European Council on 24th and

The European stress tests: a unique exercise in transparency

This exercise was one that was unprecedented in Europe: based on common specifications, 140 nuclear reactors underwent stress tests, the results of which were submitted to a peer review and led to recommendations implemented at a national level, taking the form of concrete measures to reinforce safety, as stipulated in a European action plan and national action plans.

Exceptional resources were committed (about 500 man/years) to carry out the stress tests and the subsequent peer review. Public information and participation throughout the exercise was the subject of constant attention. Meetings presenting the national stress test reports were organised, along with public seminars in Brussels timed to coincide with the peer review. All the reports produced for the stress tests and the peer review were published on the ENSREG website. The same will apply to the documents drawn up for the European and national action plans.

The exercise was performed coherently by 17 countries and led to national requirements imposing certain measures that are binding on the licensees in order to reinforce the safety of the facilities. It demonstrates the effectiveness of a single, coordinated international approach, implemented under national responsibility, in advancing safety at an overall European level and within each of the member States.

The European "basic standards" directive

On 29th September 2011, the Commission officially adopted a draft directive setting out basic standards for health protection against the hazards resulting from exposure to ionising radiation. This is now being submitted to the Council of Ministers of the European Union and to the European Parliament.

This draft directive incorporates five existing directives (see chapter 3) into the same text and updates the provisions of directive 96/29/Euratom, taking account of the current state of scientific and technical knowledge and the recommendations of the International Commission on Radiological Protection (ICRP) of December 2007. This draft text is also consistent with IAEA's new basic safety standards (BSS) adopted by the Board of Governors (publication in progress).

The new draft directive also includes new elements, in particular protection of the environment, protection from natural radiation (radon) and protection from radiation from building materials, and measures for emergency situations.

For information, ASN in 2010 initiated widespread consultation with stakeholders on a draft directive on basic safety standards for radiation protection (BSS Euratom), placed online on the European Commission's website. Following this consultation exercise, ASN forwarded proposal to the Government with the aim of preparing the position that France would maintain within the Atomic Questions Working Group discussions. The negotiations that began in November 2011 continued throughout 2012 and an AQG agreement is expected during the first half of 2013 before initiating the mandatory consultations, including that with the European Parliament. Since the beginning of the Council of Ministers debates on this new text, ASN, together with other French authorities and in support of the Permanent Representation, has been an active participant in the negotiations.

25th March 2011 asking the European Commission to look at the necessary changes to the European safety framework, it stated that it intended to propose a revision of the 2009 directive on the safety of nuclear facilities and to involve ENSREG in this process in early 2013.

2 | 1 | 4 The European directive on the management of waste and spent fuel

In 2011 ENSREG identified the broad outlines of a regulatory text on the safe management of radioactive waste and spent fuel. On 19th July 2011, the Council of the European Union adopted a directive "establishing a community framework for the responsible and safe management of spent fuel and radioactive waste" (directive 2011/70/Euratom). The adoption of this directive is a major event and one that helps strengthen nuclear safety within the European Union, while making the member States more accountable for the management of their radioactive waste and spent fuels.

This directive is legally binding and covers all aspects of the management of radioactive waste and spent fuel, from production up to long-term disposal. It recalls the prime responsibility of the producers and the ultimate responsibility of each Member State for ensuring the management of the waste produced on its territory, ensuring that the necessary steps are taken to guarantee a high level of safety and to protect the workers and the public from the dangers of ionising radiation.

It clearly defines obligations concerning the safe management of radioactive waste and spent fuel and requires each Member State to adopt a legal framework covering safety issues, stipulating:

- the creation of a competent regulatory authority with a status

such as to guarantee its independence from the producers of waste;

- the creation of authorisation and licensing procedures, with authorisation applications being examined on the basis of safety demonstrations by the licensees.

The directive covers the drafting of national radioactive waste and spent fuel management policies to be adopted by each Member State, in particular specifying that each Member State must adopt a legislative and regulatory framework designed to implement national radioactive waste and spent fuel management programmes. The directive also contains requirements concerning transparency and the participation of the public, the financial resources for managing radioactive waste and spent fuel, training and regular self-assessments and peer-reviews. It officially determines the ultimate responsibility of each Member State for management of its radioactive waste and specifies the possibilities with regard to export for disposal of this waste.

These aspects therefore constitute significant steps forward in reinforcing the safe and responsible management of radioactive waste and spent fuel in the European Union.

ASN worked with the French authorities on transposing the directive into French law, which should be effective by 23rd August 2013.

2 | 1 | 5 The Euratom Treaty European working groups

ASN also participates in the work of the Euratom Treaty committees and working 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).

For budgetary reasons there was only one meeting of the Article 31 committee in 2012. The activities of this group included the allowable activity levels in foodstuffs and cosmetic products as well as monitoring the various Commission projects such as European guides for appraisals in medical physics, or the acceptability criteria for medical radiology equipment. A review of existing knowledge concerning the risks to the lens of the eye through exposure to ionising radiation was also initiated. Finally, a seminar was held to deal with environmental protection.

In addition to the revision of the BSS directive (see box), the most significant European legislative proposals currently being examined in Brussels include:

- the “drinking water” draft directive officially adopted by the European Commission on 27th June 2011. Concerning this text and indeed the BSS revision, ASN is the principal adviser to the French Government;
- a proposal for a Council rule on the establishment of a Community system for registration of radioactive material transporters;
- draft Council conclusions on the procurement of radioisotopes.

In 2012, ASN enjoyed very close relations with the European institutions other than the European Commission. Philippe Jamet, ASN Commissioner, therefore had numerous contacts with the European Parliament and was in particular heard by the Energy and Industry Commission, in May 2012, to inform the Members of the European Parliament about the results of the stress tests, following the adoption of the peer reviews report by ENSREG, on 25th April 2012. The number of ENSREG meetings and exchanges with France’s PERMANENT REPRESENTATION to the European institutions (RPUE) increased significantly.

2 | 1 | 6 The Western European Nuclear Regulators Association

WENRA (see box) has since its creation followed clearly defined objectives:

- firstly, to provide the European Union with an independent appraisal capability for examining the issues of nuclear safety and its regulation in the countries applying for membership of the European Union. This first objective was successfully achieved on the occasion of the EU expansions of 2004 and 2007. WENRA thus recommended and obtained the closure of eight reactors in the EU membership candidate countries, that is the two reactors of the Ignalina plant in Lithuania, the two reactors of the Bohunice plant in Slovakia and the four reactors of the Kozlodouzi plant in Bulgaria;
- secondly, to develop a common approach to nuclear safety and regulation, in particular within the European Union. For this second objective, WENRA set up two working groups to harmonise the safety approaches, with a view to ensuring continuous improvement in the fields of:



Mr André-Claude Lacoste and Mr Hans Wanner during a WENRA meeting, Paris – 22nd-24th October 2012

- reactor safety (Reactor Harmonisation Working Group - RHWG). ASN seconded a staff member from the International Relations Department to this working group to take charge of preparing, carrying out and following up its meetings;
- radioactive waste, the disposal of spent fuel, decommissioning (Radioactive Waste, Spent Fuel Storage, Decommissioning - WGWD - working group).

In each of these fields, the groups began by defining the reference levels for each technical topic, based on 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.

In 2006, the WENRA members developed national action plans for power generating reactors, designed to ensure that for all technical areas in which differences had been identified, national regulations were brought into line with the reference levels defined in 2005. The members had set themselves the target of reaching a harmonised situation by 2010. A significant effort was made by the regulatory bodies of the countries concerned – in France, the BNI order published on 7th February 2012 draws extensively on the results of the work done by WENRA and the practices in force are therefore to a large extent in conformity with these reference levels – and the reference levels “transposition” work is continuing.

In 2008, in addition to continuing the work already under way, WENRA initiated new work to harmonise safety objectives for new reactors.

However, WENRA’s major contribution in 2011 and 2012 was to be the drafting of the stress tests specifications, as required by the European Council in March 2011, in the light of the first lessons learned from the Fukushima disaster. WENRA has accumulated more than ten years of experience and exchanges between safety regulators, which has led to a climate of confidence between its members. A result such as this – in other words the performance of stress tests in 14 countries on the same methodological basis – would not have been possible without this confidence.

At its meeting of 21st and 22nd March 2012, WENRA decided to continue to examine the issue by creating specific working groups to help learn the lessons of Fukushima, in particular mutual

assistance between safety regulators in the event of a severe accident in a European country, the protection of the NPPs against natural hazards, reactor containment in the case of severe accidents, accident management and periodic safety inspections. WENRA closely monitored the development of the work being done by ENSREG.

During the last meeting of 22nd to 24th October 2012, WENRA adopted a safety baseline for new reactors, which was submitted for public consultation, and an update of the WENRA reference levels.

Finally, in 2012, ASN used its network of WENRA and ENSREG correspondents to ensure quick and harmonised information to all its European partners concerning the events which occurred in France, for example during the accident at Penly on 25th April 2012.

2 | 1 | 7 Association of the Heads of the European Radiological Protection Competent Authorities (HERCA)

The existence of a European regulatory base for radiation protection, leaving each country a certain freedom of movement in interpreting and applying European rules in their national legislation, has led to differing transpositions in this field resulting in significant discrepancies. For example, this has resulted in protection measures for the general public that differ between neighbouring countries in the event of a nuclear accident and in different protection measures for workers travelling from one country to another.

ASN is convinced that if progress is to be made on harmonisation in Europe, in particular on the topic of radiation protection, close collaboration is needed between the heads of European authorities regulating radiation protection, as is already the case for nuclear safety. This is why, in 2007, taking WENRA as an example, HERCA, the Heads of European Radiological Protection Competent Authorities, was created. The association set itself the goal of increasing European cooperation in radiation protection matters. Five years later, the HERCA association has become a key radiation protection player in Europe, and can already claim

tangible progress in the harmonisation of regulations and practices.

Five working groups were set up to deal with the following topics:

- outside workers and the dosimetric passport;
- justification and optimisation of the use of sources in the non-medical field;
- medical applications;
- preparation and management of emergency situations;
- collective doses from medical exposures.

ASN is present in all the working groups and also acts as general secretary for the association.

In 2012, the ninth and tenth meetings of the HERCA Board of Heads were held. On 31st May, the Spanish *Consejo de Seguridad Nuclear* (CSN) hosted the ninth HERCA association meeting in Cordoba, under the presidency of Sigurdur Magnússon (Iceland), where 29 representatives from 20 countries examined the results of the work done by five HERCA working groups. A high-level representation from the European Commission was also present. At this meeting, the following were approved:

- a joint declaration on exposure of individuals to radiation during the course of medical screening;
- a new version of the dose passport incorporating the comments from the stakeholders.

The tenth HERCA meeting was held in Paris on 30th and 31st October 2012 at the invitation of ASN. 43 representatives from 23 HERCA member countries took part in this meeting.

During this meeting, the following decisions were taken:

- the creation of a task force to deal with new HERCA organisational challenges;
- the creation of a task force in the field of radiation protection training;
- the approval of a “guideline document” for use of the HERCA dose passport;
- the approval of a working group action plan on non-medical sources and practices;
- an agreement in principle on the progress of the work done by the “emergencies” working group and its consistency with that done in parallel by WENRA in the same field.



10th meeting of the Heads of European Radiological Protection Competent Authorities (HERCA), Paris – 30th-31st October 2012

To help improve preparedness for emergency situations in Europe, a communication system is currently being set up between the HERCA member countries and the European Commission. To avoid other bodies duplicating this work, HERCA took steps to boost coordination with other organisations and clubs (e.g. WENRA, NEA, etc.) concerning post-Fukushima aspects.

2|1|8 ASN participation in the Euratom 7th framework R&D programme

In 2012, ASN became a partner in two European projects as part of the Euratom 7th Framework R&D programme: SITEX and PREPARE.

- SITEX (Sustainable network for Independent Technical Expertise for radioactive Waste disposal): the purpose of this two-year project is to develop a common view on the part of safety regulators and their technical support organisations concerning the process for appraising and authorising the creation and operation of a geological repository, in order to support the national programmes under way in several European countries. Moreover, the goal of SITEX is to create a dialogue between the regulators and the “IGD-TP” agencies platform devoted to geological disposal of waste (of which ANDRA is a member). ASN, represented by its Waste, Research Facilities and Fuel Cycle Facilities Department (DRC), took part in the work of this SITEX programme in 2012;
- PREPARE: ASN is a stakeholder in a European call for bids which partly concerns emergency situations and post-accident management in the field of the transport of radioactive substances. The three-year project, starting in 2013, is called PREPARE (Innovative integrated tools and Platforms for Radiological Emergency Preparedness and post-Accident Response in Europe) and brings together industrial firms, various competent authorities and a number of research centres. ASN is represented in this project by the Transport and Sources Department (DTS).

2|1|9 Multilateral assistance actions

After the Chernobyl disaster of 26th April 1986 and the fall of the Soviet bloc, the G7 Summit, held in Munich in July 1992, defined three priority areas for assistance with nuclear safety for eastern European countries:

- contribution to improving the operating safety of existing reactors;
- provision of funding for short-term improvements to the least safe reactors;
- improvement in the organisation of safety regulation, making a clear distinction between the responsibilities of the different entities concerned and reinforcing the role and scope of local nuclear regulatory bodies.

Cooperation in the field of nuclear safety with the Eastern European countries, launched under the TACIS programme, continued in 2007 via the Nuclear Safety Cooperation Instrument

(NSCI) which now extends to all countries in the world, with no geographical restrictions. The EURATOM regulation creating the NSCI is applicable until 31st December 2013. The programme itself has a total budget envelope for the period 2007-2013, of 524 million euros.

As for the concrete assistance provided by ASN via the NSCI, this primarily took the form of help to national regulatory bodies concerning nuclear safety. In 2012, ASN took part in regulatory assistance projects for Ukraine (total budget of €2.8M) and Vietnam (total budget of €2M).

On 7th December 2011, the European Commission also adopted a proposal for a new regulation prolonging the NSCI for the period from 1st January 2014 to 31st December 2020, with a budget envelope of €631M.

The objectives of the new regulation include the goal of:

- supporting the promotion and implementation of stricter nuclear safety and radiation protection standards in nuclear facilities and of radiological practices in third-party countries;
- supporting the drafting and implementation of responsible strategies for ultimate disposal of spent fuel, for waste management, for decommissioning of facilities and for clean-out of former nuclear sites.

In order to optimise NSCI implementation for the new period, the Commission launched a review in 2012, consulting the participants in the first programme, including the safety regulators and their technical support organisations.

In 2013, the Commission intends to consult ENSREG and initiate discussions with the safety regulators in order to define the strategy to be put into place and clarify the role of the stakeholders. The new system should be implemented in early 2014.

These actions are supplemented by other international technical assistance programmes, in accordance with resolutions adopted by the G8 (G7 extended to include Russia), or those run by IAEA, to improve nuclear safety in third party countries, and which are funded by contributions from donor States and the European Union.

ASN thus took part in expert groups reporting to the European Bank for Reconstruction and Development (EBRD) tasked with managing multilateral funds to finance the construction of a new sarcophagus for Chernobyl unit 4, where the accident occurred in April 1986, and the construction of storage and reprocessing facilities for the spent fuels and waste still present on the site.

Moreover, ASN is a member of the French delegation to the Nuclear Safety and Security Group (NSSG) of the G8¹.

In 2012, the subjects dealt with under the American presidency concerned licensee safety culture, the safety/security interface, preparation for the second extraordinary meeting of the Convention on Nuclear Safety, the management of emergency situations, civil liability in nuclear matters and the assistance programmes managed by the EBRD. ASN in particular emphasised the unprecedented performance of the post-Fukushima stress tests, which were carried out across Europe, but also in nuclear countries in other parts of the world.

1. The member countries of the G8 are: France, Germany, United States, Japan, Canada, Italy, Russia, United Kingdom. The European Commission, the EBRD, the NEA and IAEA also took part in exchanges with the NSSG.

The NSSG programme in 2013, the broad outlines of which have already been drawn by the British presidency, should give pride of place to emergency preparedness and management. ASN will monitor this work with particularly close interest, in particular owing to Franco-British cooperation on this subject.

2|2 The International Atomic Energy Agency (IAEA)

The International Atomic Energy Agency (IAEA) is a United Nations organisation based in Vienna, Austria. In September 2012, it comprised 155 Member States. IAEA's activities are focused on two main areas: on the one hand, the control of nuclear materials and non-proliferation and, on the other, all activities related to the peaceful uses of nuclear energy. In this latter field, two IAEA departments are tasked with developing and promoting nuclear energy on the one hand and the safety and security of nuclear facilities on the other.

In the context of the Fukushima accident, the IAEA organised several expert missions to Japan, one of which was devoted to safety, a few weeks after the disaster, with the participation of Philippe Jamet. Similarly, a ministerial level conference was held from 20th to 24th June 2011, under the aegis of the IAEA. On the basis of the conclusions of this event, an action plan was drawn up and approved by the Board of Governors in September 2011. This action plan identifies a large number of measures to be implemented by the secretariat of the Agency and by the other member States.

These include reinforcing IAEA's main activities involved in maintaining a high level of nuclear safety around the world (definition of safety standards, use of peer review instruments such as IRRS (Integrated Regulatory Review Service), OSART (Operational Safety Review Team), revision of international Conventions on nuclear safety, accident notification and assistance to countries affected by an accident, etc.), activities in which ASN has been extensively involved for many years.

From 15th to 17th December 2012, ASN took part at a ministerial conference in Koriyama, Fukushima province, concerning the steps taken at an international level and by the different countries, following the Fukushima accident. For example, Pierre-Franck Chevet and Philippe Jamet, ASN Chairman and Commissioner respectively, shared ASN's work on the European stress-tests with their international counterparts. The meeting was held under the auspices of the IAEA and the Japanese Authorities.

– Revision and consolidation of the Safety Standards, describing the safety principles and practices that the vast majority of member States use as the basis for their national regulations

This activity is supervised by the Commission on Safety Standards (CSS) set up in 1996. The CSS consists of 24 highest level safety regulator representatives, appointed for four years and chaired since early 2012 by the Director General of the Czech regulatory body, Dana Drabova. In 2012, the 31st and 32nd CSS meetings took place. France was represented by the ASN Chairman.

The CSS coordinates the activities of four committees tasked 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, which meet twice a year. It should be noted that in 2011, the ASN representative on the NUSSC was appointed chairman of this committee, with a three-year mandate. Representatives of the relevant French organisations also participate in the work of the technical groups drafting the documents.

In order to improve the incorporation of aspects relative to nuclear safety and security, a Nuclear Security Guidance Committee (NSGC) was created, similar to those which already exist for safety, with an official interface being set up between the “safety” and “security” committees. In the longer term, extension of the scope of the CSS to “security” subjects which overlap the field of safety, is being envisaged.

– The rise in the number of audit missions requested from IAEA by the member States and their increased effectiveness

The OSART and IRRS missions fall into this category. These missions are performed using the IAEA safety standards as the reference, which confirms the international benchmark status of these standards.

The OSART missions are carried out by a team of experts from third party countries who, for two to three weeks, examine the safety organisation of the nuclear power plants in operation. The actual implementation of the recommendations and suggestions put forward by the team of experts is verified during a follow-up mission, 18 months after the visit by the experts.

The 24th OSART mission to France (in other words one OSART mission per year) took place from 13th to 29th November 2012, at the Gravelines nuclear power plant. As with the previous missions, the concluding report will be published on the ASN website (www.asn.fr). The follow-up mission to Saint-Alban and the preparatory meetings for the mission to Chooz also took place in 2012. After Chooz (the mission will take place in the autumn of 2013), all French NPPs will have been the subject of an OSART mission.

The IRRS missions are devoted to analysing all safety aspects of the activities of a regulatory authority. ASN, which received an IRRS mission in 2006 and a follow-up mission in 2009, took part in several IRRS missions in 2012, in Sweden, Greece, Slovakia and Finland, where the Commissioner Philippe Jamet led the team of experts.

The peer reviews are a key component of the ongoing examination of changes to the international nuclear safety framework. Several countries consider that, because the IAEA safety standards are not binding, it was essential to make regular peer reviews mandatory, with widespread dissemination of their results. It is worth noting that, through the provisions of the European directive on the safety of nuclear facilities, the EU member countries are already subject to periodic and mandatory peer reviews of their general nuclear safety arrangements.

ASN responds to other requests from the IAEA secretariat, for example to take part in regional radiation protection training and expert appraisal missions, primarily for French-speaking countries.

Thus, from 30th January to 3rd February 2012 and in coordination with the nuclear safety and radiation protection organisation (ARSN) of Burkina Faso, the IAEA organised a regional seminar for French-speaking African countries on the sharing of experience and the lessons learned from the implementation of the Code of Conduct on the safety and security of radioactive sources. It attracted 27 representatives from 17 French-speaking African countries. Several representatives from ASN and the Belgian safety regulator (AFCN) presented the regulation, organisation and practices in force in their respective countries.

In 2012, under the IAEA programme of bursaries and study trips, the ASN International Relations Department and its Lille, Dijon and Strasbourg divisions welcomed trainees from Mali, Morocco and the Czech Republic for courses lasting from one to eight weeks and presented ASN, its experience and its inspection practices in the field of nuclear safety and radiation protection. Three trainees from Belarus (*Gosatomnadzor*) interested in communication and public information also spent a week at ASN's Communication and Public Information Department in November 2012.

– Harmonisation of communication tools

ASN remains closely involved in the work on the INES (International Nuclear Event Scale). It became apparent that material to help with the use of this communication tool needed to be developed.

At France's request, a working group on the rating of radiation protection events involving patients was set up in 2006. It comprises those IAEA Member States particularly conscious of the stakes involved in the radiation protection of patients: Belgium, Brazil, Finland, France, Germany, Hungary, Japan, Spain, Ukraine and United States. In July 2012, the work done by this group led to a draft technical document proposing a method for rating radiation protection events involving patients that was consistent with the INES rating methodology. Backed by the experience acquired through the production and utilisation of the ASN-SFRO scale in France (see chapter 4), ASN was extensively involved in the development of this document. Starting in early 2013, the proposed methodology will undergo an 18-month evaluation period by a few volunteer countries (so far, Belgium, France, India, Luxembourg, Portugal and Sweden).

2|3 OECD's Nuclear Energy Agency (NEA)

The NEA, created in 1958, now counts 30 member countries from Europe, North America and the Asia-Pacific region. Its main objective is to promote cooperation for the development of nuclear power as an energy source that is reliable and acceptable from the environmental and economic points of view.

During the course of 2012, the NEA continued with its activities to analyse feedback from the Fukushima accident, both through its working groups and during specific seminars (meeting with Japanese experts in January 2012 on the organisation and working of a safety regulatory body, organisation of a seminar on communication in an emergency situation). In 2012, the NEA also organised peer review missions on planned projects for the storage or disposal of radioactive waste in Belgium and Sweden.

2012 was also marked by the decision by the OECD Board to officially invite the Russian Federation to become the 31st member of the NEA, with effect on 1st January 2013.

Russian representatives already take part in some NEA working groups as observers.

Within the NEA, ASN takes part in the work of the Committee on Nuclear Regulatory Activities (CNRA), the Committee on Radiation Protection and Public Health (CRPPH), the Radioactive Waste Management Committee (RWMC), and other working groups of the Committee on the Safety of Nuclear Installations (CSNI).

ASN also makes a contribution to the activities of the cross-cutting working group set up by the NEA following the accident which occurred in the Fukushima Daiichi NPP, which aims to identify subject which could be dealt with by the various NEA committees and working groups.

Committee on Radiation Protection and Public Health (CRPPH)

From 21st to 23rd May, ASN took part in the 70th meeting of the NEA's CRPPH. This committee, which consists of high-level radiation protection experts, is recognised worldwide and works in close cooperation with the other international organisations active in the field of radiation protection (ICRP, IAEA, European Commission, World Health Organisation, UNSCEAR). The meeting's agenda continued to include the Fukushima Daiichi accident and its impact on the activities of the various working groups within this Committee. It should also be noted that ASN made one of its staff members specialising in the management of post-accident situations available to the CRPPH (NEA's Committee on Radiation Protection and Public Health) to improve the understanding of this topic.

Committee on Nuclear Regulatory Activities (CNRA)

During its two meetings organised in Paris in 2012 (4th-5th June and 3rd-4th December), this committee – comprising representatives of the regulatory bodies from several countries, including the United States, Japan, South Korea, Germany, Switzerland and France – continued its work to incorporate experience feedback from the Fukushima accident. This committee thus contributed to defining the objectives and set up a working group devoted to accident management, including a review of on-site preparedness for emergency situations. The CNRA also continued to supervise its four working groups covering a variety of fields ranging from exchanges on inspection practices in force in the various member States to communication with and information of the general public. During the meeting of 4th December 2012, Jean-Christophe Niel, ASN Director General, was elected chairman of the CNRA.

2|4 The Multinational Design Evaluation Program (MDEP)

The MDEP, created in 2006, is an international cooperative initiative to develop innovative approaches for pooling the resources and know-how of the regulatory bodies, which have responsibility for regulatory assessment of new reactors. One of the key goals of this forum is to contribute to the harmonisation and implementation of safety standards.

At the request of the regulatory bodies which are members of the MDEP, the NEA is responsible for the technical secretariat of

this programme. An ASN staff member is seconded to the NEA to help with this task.

Members of the MDEP programme

2012 was marked by the membership of the regulatory bodies of India (AERB) and the United Arab Emirates (FANR) which joined the MDEP alongside the authorities from ten other countries which were already members of this programme (United States, Canada, China, Finland, France, Japan, South Korea, Russian Federation, South Africa, United Kingdom). These new members and the interest in joining the programme expressed by other Authorities are a sign of recognition of the proactive nature and the quality of the work being achieved by the MDEP.

Organisation of the MDEP

The broad outlines of the work achieved within the MDEP are defined by its Policy Group and implemented by the Steering Technical Committee. This work is performed by the Design Specific Working Groups (DSWG) for nuclear reactors and the Issue Specific Working Group (ISWG) for specific technical subjects.

The DSWG groups devoted to the EPR reactor (involving the regulatory bodies of Canada, China, the United States, France, Finland and the United Kingdom) and the AP1000 reactor (involving the regulatory bodies of the United States, the United Kingdom and China) were recently joined by a group devoted to the APR1400 reactor, in which the regulatory bodies of South Korea, Finland, the United Arab Emirates and the United States will be participants.

Three ISWG groups are working on harmonisation of multinational inspection of nuclear component manufacturers (Vendor Inspection Cooperation Working Group - VICWG), on standards and codes for pressure vessel components (Codes and Standards Working Group - CSWG), and on design standards for digital I&C (Digital Instrumentation and Control Working Group - DICWG).

MDEP activities

At its annual meeting in May 2012 in Paris, the MDEP's Policy Committee, chaired by the ASN Chairman, validated the work programmes of the various working groups for the coming years, plus the membership of the Indian regulatory body, the AERB. This meeting was also an opportunity to prepare for the membership of the United Arab Emirates regulator (FANR) which was officially confirmed at the end of 2012. At this meeting, the representatives of the various regulators agreed on the benefits of extending the work of the MDEP to the start-up of the EPR and AP1000 reactors currently under construction around the world. Finally, it was decided that the Policy Committee would be chaired by the Chairman of the US Nuclear Regulatory Commission as of 2013.

The MDEP's 2011 activity report was published in June 2012, providing information about the MDEP's work to the stakeholders, i.e. the regulatory authorities not participating in the MDEP, the nuclear sector industry and the general public.

During the course of 2012, the activities of the various working groups in particular concerned the organisation of several joint inspections and the drafting of "Common positions" on a variety of subjects (digital I&C for the EPR reactor, harmonisation of codes, etc.).

The MDEP made sure to maintain its interaction with the nuclear industry by organising specific meetings with the designers and the CORDEL group of the World Nuclear Association (WNA).

In order to strengthen and ensure continued dialogue with these stakeholders, a third MDEP conference on the design of new reactors will be held in Paris in the autumn of 2013. As previously, this conference will be an opportunity to review the activities of the MDEP and look at prospects with regard to harmonisation, which remains very much a long-term process.

2|5 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 this radiation represents for the environment and for health. This activity is supervised by the annual meeting of the national representations of the Member States, comprising high-level experts, to which Mrs Tirmarche and Mr Bourguignon, ASN Commissioners, are invited. The reports from this scientific assembly, which is an international benchmark, cover topics such as illnesses other than cancers and the risks linked to low doses. For cancer-related risks, the uncertainty of the dose received and its impact on the incidence of cancer is currently an important subject for consideration at UNSCEAR. An *ad hoc* expert group was set up to assess the health and environmental impact of the Fukushima accident. This group should present its preliminary conclusions in March 2013 and the final report in September 2013, on the occasion of the General Assembly of the United Nations.

2|6 The International Nuclear Regulators' Association (INRA)

The International Nuclear Regulators' Association comprises the regulatory bodies from Germany, Canada, South Korea, Spain, the United States, France, Japan, the United Kingdom and Sweden. This association is a forum for regular and informal discussions concerning nuclear safety issues (each member presents its latest national news and its positions on international issues). It meets twice a year in the country holding the Presidency, with each country acting as president for one year in turn (Canada in 2012 and Japan in 2013).

The members of INRA gave thought to how to react in the wake of the Fukushima Daiichi accident. In 2012, the Canadian President of the INRA sent a letter to Mr Amano, Director General of the IAEA, in which she offered her support for the IAEA plan of action, and in particular the steps aimed at promoting the performance of stress tests in all nuclear countries worldwide, and the reinforcement of the peer review systems (IRRS and OSART).

During the Vienna meeting in September 2012, the extremely fruitful discussions that ASN had hoped for, took place with representatives of the World Association of Nuclear Operators (WANO) on how the licensees intended for their part to learn the lessons of Fukushima Daiichi. At the initiative of the ASN Chairman, a review was also initiated into the possible expansion of INRA to include new members.

2|7 The European ALARA Network and the European Radiation Protection Authorities Network

The ALARA² principle consists in taking the most effective protection measures considered to be “reasonable”, irrespective of the exposure levels. Application of this principle weighs the protection resources against the level of protection, in order to lead to the best possible protection while giving consideration to economic and social conditions. Thus, under the aegis of the European Commission, the ALARA network (20 countries) identifies, assesses and selects the best radiation protection actions

for keeping the exposure of workers and the public at a level that is as low as reasonably achievable.

In 2012, ASN took part in the two six-monthly meetings of the European ALARA Network (EAN) management group, on 31st May and 18th December in Paris. These meetings were an opportunity for the various member States to present topical subjects related to the ALARA approach.

On 1st June, ASN hosted the annual meeting of the European Radiation Protection Authorities Network (ERPAN), a sub-network of EAN. This meeting enabled each regulatory body to present topical subjects related to radiation protection in the industrial and medical sectors. ASN took this opportunity to present the results of two surveys performed within the network: one concerning watches containing tritium and the other concerning the national organisation of medical radiation physics departments in hospitals.

Meeting of ASN-EDF and a member of the European Commission, as part of the additional visits by experts mandated by ENSREG following the EU peer reviews, Tricastin - 19th-20th March 2012

3 BILATERAL RELATIONS

ASN works with many countries within the framework of bilateral agreements signed at different levels:

- Governmental agreements (such as Germany, Belgium, Luxemburg, Switzerland);
- Administrative arrangements between ASN and its counterparts (about twenty).

Bilateral relations between ASN and its foreign counterparts are a priority focus for international actions. They allow reactive and direct exchanges on topical subjects and the rapid implementation of cooperation measures. They also prove to be extremely useful in the event of an emergency situation.

3|1 Staff exchanges between ASN and its foreign counterparts

Better understanding of how foreign nuclear safety and radiation protection regulators actually function is a means of learning pertinent lessons for the working of ASN itself and enhancing staff training. One way to achieve this goal is to develop the staff exchange system.

Provision is made for several types of exchange:

- very short term actions (a few days) are a means of offering our counterparts a chance to take part in cross-inspections and joint nuclear and radiological emergency exercises. In 2012, more than thirty joint inspections in the field of nuclear safety and radiation protection were organised. ASN inspectors took part in inspections on nuclear power plants, for example in South Africa, Germany, Russia, Belgium and Switzerland, while foreign inspectors (German, Russian,

Swiss, Belgian) took part in inspections on French NPPs. A cross-inspection was also held with the ONR on the La Hague nuclear fuel reprocessing site. Some of these joint inspections also related to radiation protection in the medical and industrial sectors in Belgium, France, Germany and Switzerland.

The two types of cross-inspection missions:

- short-term assignments (2 weeks to 6 months) aimed at studying a specific technical topic. This type of mission is organised for three staff members from the Châlons and Lille ASN regional divisions who were able to work with ASN's Belgian counterparts. These divisions had in the recent past also welcomed Belgian experts for similar missions (see chapter 8);
- long-term exchanges (about one to three years) in order to become fully familiar with the ways in which foreign nuclear safety and radiation protection regulators work, to gain in-depth knowledge. Whenever possible, this type of exchange should be reciprocal.

Under the terms of an assistance contract, a staff member from the nuclear pressure equipment department (DEP) was seconded to the British regulatory authority (Office for Nuclear Regulation - ONR) to work on the generic assessment of the new-design EPR and AP1000 reactors. Since early 2011, a French inspector from the nuclear power plant department (DCN) has been seconded to the ONR, where he is working on defining strategies for monitoring the construction and the start-up of the new reactors.

In exchange for the secondment to the *Spanish Consejo de Seguridad Nuclear* (CSN) of an engineer from the ASN Research

2. As Low As Reasonably Achievable.

Facilities and Waste Department (DRC), for a three-year period starting on 1st February 2009, a CSN engineer was seconded to the Nuclear Power Plant Department until the beginning of 2012.

Between October 2011 and July 2012, a staff member from the US NRC (Nuclear Regulatory Commission) worked in the ASN International Relations Department. His task was to assist the commissioner, Philippe Jamet, with organising the peer review of the European stress tests performed following the Fukushima accident.

The secondment of an ASN staff member to the American regulator is also planned for the spring of 2013, for a period of three years.

Staff exchanges are also organised with international organisations. For instance, a member of ASN has been working at IAEA since autumn 2010, in the team tasked with organising Integrated Regulatory Review Service (IRRS) assignments. Another ASN engineer, today hired by the IAEA, is responsible for the scientific secretariat of the CSS (Commission on Safety Standards, see point 2 | 2). Finally, and as previously mentioned, ASN seconds one of its staff to the NEA to contribute to the work of the MDEP technical secretariat.

These staff exchanges or secondments will continue to be a means of enhancing ASN practices. The experience acquired over nearly ten years now, indicates that inspector exchange programmes make a significant contribution to stimulating bilateral relations between nuclear safety and radiation protection regulators.

It is also worth underlining the appointment of representatives of foreign safety regulatory bodies to the Advisory Committees of experts. ASN uses this practice to enable experts from other countries to not only take part in the Advisory Committees but also, on occasion, to act as Chair or Deputy Chair. The participation of experts from European countries in the advisory committees devoted to the stress tests also confirms ASN's openness to the expertise and critical eye of foreign experts.

3|2 Bilateral cooperation between ASN and its foreign counterparts

Bilateral relations between ASN and its foreign counterparts are built around an approach that integrates nuclear safety and radiation protection for each of the countries with which ASN maintains priority relations. The following can be offered as examples.

Germany

The thirty-eighth Franco-German Commission on nuclear installation safety questions (*Deutsch-Französische Kommission für Fragen der Sicherheit kerntechnischer Einrichtungen - DFK*) met on 23rd and 24th May in Coblenz. This annual meeting enabled the two delegations to present topical matters related to nuclear safety and radiation protection in the two countries, as well as the annual reviews concerning the safety of the Fessenheim and Cattenom NPPs in France and Neckarwestheim and Philippsburg in Germany.

The representatives of the four working groups set up by the DFK also presented the results of their annual work and their

respective mandates, sometimes with minor changes, were extended for the next year.

The meeting was also the opportunity to review decommissioning practices in both countries. The subject naturally led to a visit to the decommissioning worksite at the Mülheim-Kärlich former power plant in Germany.

Belgium

Relations with the Belgian Federal Nuclear Regulatory Agency (AFCN) and its technical support organisation BEL V cover all of ASN's areas of competence: safety (power reactors, new research reactors, cyclotrons), waste management, transport and radiation protection. ASN also contributed its expertise to the discussions organised by the AFCN within a multilateral framework, concerning the defects detected on the vessel of reactor 3 in the Belgian Doel NPP and on that of reactor 2 in the Tihange NPP.

As in previous years, several cross-inspections were organised with ASN's Belgian counterparts, whether on the topic of NPPs or in the field of small-scale nuclear activities. Three inspectors from the ASN regional divisions of Châlons and Lille were given short-term secondments in order to familiarise themselves with the organisation and practices of the Belgian regulator. These staff exchanges will continue during the course of 2013.

The steering committee comprising ASN, AFCN and BEL V met on 26th and 27th January 2012 in Cadarache, where a visit to the site of the CEA Centre was organised (RJH reactor construction site, ITER project, etc.).

Brazil

The ASN Director of nuclear power plants took part in a technical meeting on 7th to 9th November 2012, concerning recent licenses for new reactors. This meeting, held in Rio de Janeiro, was organised by the Brazilian safety regulator, the National Commission for Nuclear Energy (CNEN).

Chile

A delegation from the Chilean Nuclear Energy Commission (CCHEN) visited from 13th to 14th September 2012. This visit followed an invitation from the ASN Chairman to the Chairman of CCHEN, in response to a request for assistance and advice with the process of creating an emergency management centre in Chile. The aims of this visit were on the one hand to present the French response organisation in the event of a nuclear accident (role of ASN and IRSN, respective emergency centres) and, on the other, to present the CCHEN and the existing Chilean system for dealing with a nuclear emergency. The work also concerned a new project for an emergency centre in Chile.

China

In 2012 a steering committee meeting was held by ASN and its Chinese counterpart NNSA. The delegations were headed by the ASN Chairman, for France, and by Vice-Minister Li Ganjie, for China. An action plan was drawn up during this meeting. It makes provision for several types of actions to be taken in 2013, in particular including the organisation of seminars in China concerning the ten-yearly reactor inspections,

the EPR start-up tests and the reception of Chinese trainees at ASN. In addition to this meeting, the Chinese delegation also went to Flamanville to visit the EPR reactor construction site.

For several years, ASN's Lyon division has also enjoyed relations with the NNSA's Guangdong division. In March 2012, the ASN Lyon division thus welcomed three Chinese inspectors to discuss inspection practices in force in both countries and to share the technical experience acquired in monitoring the safety of the 900 MWe type reactors.

In 2012, a delegation from the department in charge of emergency situations within the CAEA (Chinese Atomic Energy Administration) met ASN to examine how France organised its preparedness for radiological emergency situations, as well as the steps taken in this field with regard to the lessons learned from the Fukushima accident.

South Korea

After the establishment of the new Korean safety regulator (NSSC) in 2011, contacts were made with ASN, leading to the signing of a cooperation agreement in October 2012. An NSSC delegation came to France for discussions on communication policy and the tools used by ASN for this purpose. A visit to the Dampierre-en-Burly NPP also took place further to this meeting.



Signature of the ASN-NSSC bilateral agreement by Mr André-Claude Lacoste and Mr Chang Sun Kang, Chairman of the NSSC, Paris – 19th October 2012

Spain

On 21st June 2012, ASN received the Spanish nuclear safety regulator (CSN) chaired by Mrs Martinez-Ten, for a meeting of the steering committee of the two bodies. The discussions between the two delegations confirmed that they were extremely interested in continuing to exchange information about radiation protection, in taking part in emergency exercises, in maintaining close contacts regarding assessments relating to the extended operation of the NPPs and in sharing experience feedback about communication with the public. On the eve of the meeting, the CSN delegation visited the La Hague site. The next steering committee meeting will take place in Spain in June 2013.

The United States

The joint desire of ASN and the American regulator, the NRC, to maintain close relations was once again confirmed in 2012 through numerous actions covering several of ASN's areas of

competence. One could in particular mention the organisation in December of a meeting on the steps taken by the two regulators following the Fukushima accident, the trip by several ASN experts to the United States to discuss the in-service monitoring of nuclear pressure equipment, or the discussion meeting organised in the United States on the topic of source security.

In accordance with the staff exchanges policy in place for many years now, an ASN staff member will soon be seconded to the NRC (a staff member already enjoyed a similar posting from 2009 to 2012 in the new reactors department).

All of these measures are overseen by the steering committee comprising the Directors General of the two bodies, the latest meeting being in March 2012.

Moreover, the Chairmen of the two safety regulators met on several occasions at international conferences, for example the RIC (Regulatory Information Conference) in March 2012 or at the IAEA General Conference in September 2012 during which Mr Lacoste met his recently appointed counterpart, Mrs Mac Farlane.

Similarly, the commissioners from the two regulators met frequently, for example on the occasion of the visit to France by the NRC Commissioner, William Magwood. In parallel with his meeting with ASN, he visited the EPR reactor construction site in Flamanville and the MELOX plant in Marcoule.

The Russian Federation

Under the terms of the bilateral cooperation between the Russian safety regulator *Rostekhnadzor* and ASN, an action protocol was signed in 2011. Based on this protocol, the following measures were taken in 2012:

- a delegation of ASN and EDF staff members, headed by Mr Niel, ASN Director General, went to Moscow on 11th and 12th July, to share the lessons to be learned from the stress tests on the nuclear power plants in France and Russia. The Russian delegation comprised representatives of RTN and the operator, Rosenergoatom. The discussions were constructive and profitable for both parties. The discussions were driven by the mutual desire to build long-term cooperation;
- a delegation of ASN inspectors went to Russia to take part in the inspection at the Balakovo NPP from 23rd July to 3rd August, while ASN received Russian inspectors for the inspection of the Chinon NPP from 8th to 12th October;
- a group of ASN staff members took part in the emergency exercise from 2nd to 4th October 2012, in the Kursk NPP and, from 19th to 20th November, ASN received a Rostekhnadzor delegation to take part in the exercise at the Le Blayais NPP.

On the occasion of the IAEA General Conference, Mr Lacoste and Mr Kutin met on 19th September, to review the bilateral cooperation situation. They expressed their desire to continue and indeed build further on this cooperation.

Finland

There has been longstanding cooperation between ASN and its Finnish counterpart STUK, especially in the area of management of waste and of spent fuel. But cooperation has been significantly enhanced in recent years owing to the construction of an EPR type reactor at the Finnish site of Olkiluoto.

Under the terms of the special arrangement between ASN and STUK covering exchanges of information on the construction of new reactors, a meeting was organised in March 2012 between the ASN and STUK teams responsible respectively for the Flamanville 3 and Olkiluoto 3 projects. Based on technical discussions and visits to the construction sites, the meetings helped to reinforce interaction between the two projects, in addition to the work carried out within the MDEP multilateral framework (see chapter 12).

India

A delegation headed by the ASN Chairman and comprising representatives of ASN and its technical support organisation, IRSN, went to Mumbai in India, from 29th February to 2nd March 2012 for bilateral exchanges between ASN and the AERB.

During these three days of meetings, the following were held in turn:

- the first steering committee meeting between the two regulatory bodies, allowing discussions about small-scale nuclear activities for the first time;
- a session on the stress tests performed in France and the tests carried out in India following the Fukushima accident;
- a technical seminar devoted to EPR safety.

During the seminar on the stress tests, the presentations highlighted similarities, but also a number of significant differences, primarily concerning the scope of the stress tests which, in India, was limited to the reactors alone. ASN's Indian counterparts also expressed considerable interest in the concept of the hardened safety core and the creation in France of a rapid intervention force.

In parallel with the meeting and as Chairman of the "Policy Group" of the MDEP initiative (Multinational Design Evaluation Program), Mr Lacoste officially informed Dr Bajaj that the AERB's application to join the program had been accepted and invited his Indian host to take part in the next meeting of the "Policy Group" on 7th May 2013 in Paris.

Ireland

On 21st August, the annual meeting between the Radiological Protection Institute of Ireland (RPII) and ASN was held in Dublin. This meeting was an opportunity to review the cooperation between the RPII and ASN and the respective positions and activities of the various multilateral forums. The performance of the stress tests in France was also discussed. In May 2012, the ASN's director for ionising radiation and health participated, as a permanent member, in one of RPII's advisory committees. At the invitation of the RPII, ASN took part on



ASN-RPII Steering Committee meeting, Dublin – 22nd August 2012

10th and 11th September in the international panel of experts set up to review an incremental approach for the authorisation process in Ireland, proportionate to the risks.

Japan

During the course of 2012, ASN's bilateral relations with Japan were significantly marked by the Fukushima accident. At their request, 22 Japanese delegations mainly comprised of representatives from the Japanese safety regulator (NISA), the energy and natural resources agency (ANRE), Government representatives, members of parliament and local officials, were received by ASN. The 19th January visit by Mr Hosono, Minister for the Environment and for Management of the consequences of the Fukushima accident, should in particular be noted.

The subjects most frequently discussed at these meetings were directly linked to topical matters:

- the independence of ASN, its roles, its responsibilities (TSN Act) with respect to the creation of the new Japanese nuclear safety regulator;
- the complementary safety assessment and stress test approaches adopted in France and Europe;
- management of post-accident situations (mainly at the initiative of ASN).

Furthermore, the ASN Lyon division has for many years enjoyed fruitful and regular exchanges with NISA and its technical support organisation, the JNES. 2012 was primarily devoted to the preparation of the mission to be carried out in Japan by three inspectors from the Lyon division in the first quarter of 2013. The topics covered will be the initial lessons learned from the Fukushima accident, the creation of the Japanese nuclear safety regulator and monitoring of the safety of the fuel cycle facilities.

In addition to these bilateral meetings, there were also numerous contacts between the French and Japanese safety authorities within international bodies such as the IAEA, OECD/NEA and multilateral associations such as INRA (International Nuclear Regulators Association).

In addition, Mr Lacoste in his capacity as international expert, was invited to attend a meeting of the Japanese Government's board of inquiry, set up after the Fukushima accident, from 23rd to 25th February. Mr Lacoste, and three other foreign experts, were thus able to give their opinion of the report from this board of inquiry concerning the causes and the initial conclusions to be drawn. A visit to the Fukushima site was organised in parallel with this meeting.

Mr Lacoste was also asked to take part in an international advisory committee for the new Japanese nuclear safety regulator (NRA), which was set up in mid-September 2012. The first meeting of this advisory committee was held on 14th December in Tokyo and NRA decided to continue its exchanges in 2013 as part of the process to establish new national regulations for monitoring the safety of nuclear facilities in Japan.

Luxembourg

The eleventh meeting of the Franco-Luxembourg Joint Commission on Nuclear Safety was held on 22nd November 2012 in Luxembourg. This meeting was an opportunity to review the measures taken in the two countries following the

Fukushima accident (conclusions of the stress tests, coordination of preparedness for emergency situations, etc.). ASN also presented a review of the inspection of the EDF NPP at Cattenom, situated less than 40 kilometres from Luxembourg, and presented the agenda of the public debate to be held on the Bure site in 2013.

Malaysia

On 24th July, ASN received a Malaysian delegation comprising representatives of the radiation protection authority and the Ministry for health and the environment. The ASN presentations primarily concerned its status and its roles, the development of an appropriate regulatory framework and the construction of the EPR reactor. Following on from this meeting, a visit to the EPR construction site was organised.

Mauritania

The delegation from the Mauritanian national radiation protection and nuclear safety and security authority (ARSN) visited France from 16th to 18th January 2012. This French visit by the ARSN delegation enabled the two Authorities to get to know each other better. It was an opportunity to clearly identify ARSN's current priorities and the possible areas for collaboration with ASN, which will promote regional actions involving the IAEA.

Norway

A delegation from the Norwegian Radiation Protection Authority (NRPA) visited France on 14th November as part of the process to follow up the cooperation agreement signed by the ASN Chairman, Mr Lacoste, and Mr Harbitz, the Director General of the Norwegian Authority, on the occasion of the 8th December HERCA meeting in Berne. This meeting identified subjects of mutual interest, such as the CODIRPA, management of the radon risk or the results of the stress tests on research reactors, as well as the decommissioning of this type of reactor. In the field of preparedness for and response to emergency situations, an early notification agreement in the event of an accident will be signed by both authorities.

Poland

The ASN Chairman and his Polish counterpart, Mr Włodarski, signed an agreement in June 2012 on the exchange of technical information and cooperation in the field of nuclear safety, between ASN and its Polish counterpart, the PAA (National Atomic Energy Agency). This agreement provides a framework for regular meetings between the two safety regulators concerning the creation of a nuclear energy generating programme to be built in Poland by 2022. During the course of various seminars held in Warsaw in 2012, ASN thus presented the initial results of the stress tests conducted in France, its experience feedback and international cooperation concerning the monitoring of the EPR reactor construction site in Flamanville, as well as ASN's communication strategy and the organisation of the local information committees in France.

Czech Republic

ASN's bilateral relations with the Czech Republic continued in 2012. On 3rd October, ASN received the deputies from the

Economic Affairs Commission of the Czech national assembly, accompanied by Mrs Chatardová, the Czech Republic's ambassador to France. The discussions concerned the organisation of nuclear safety monitoring and regulation in the two countries, as well as the initiatives taken following the Fukushima accident.

The United Kingdom

ASN and the British Office for Nuclear Regulation (ONR) have cooperated for many years and the arrangement has been enhanced and improved over time. The status of the ONR is currently being modified, with the aim, by 2014, of creating an agency independent of the HSE (Health and Safety Executive) of which it has hitherto been a department.

If cooperation between ASN and the ONR focused this year on activities related to the evaluation of new reactors, the discussions also concerned monitoring and regulation of the fuel cycle facilities. In July 2012, ONR experts thus attended an inspection carried out on the La Hague site by inspectors of the Caen division and the Waste Research Facilities and Fuel Cycle Facilities Department (DRC) (see chapter 13). The two Regulatory bodies are also continuing to discuss topics related to transport operations, at regular bilateral meetings.

The two regulators are continuing with their policy of staff exchanges. While an ASN staff member is beginning the second year of his secondment to the ONR, where he is examining the dossiers for the construction of new reactors, an ONR inspector will, in the spring of 2013, be joining the ASN Waste research Facilities and Fuel Cycle Facilities Department, where she will be spending two years.

Finally, on 27th and 28th September, an ONR inspector will attend an inspection carried out by the NNB Generation Company (subsidiary of EDF Energy in charge of the EPR reactors construction project in the UK) on the AREVA Le Creusot facilities, focusing on organisational issues and examining changes to the specifications.

Slovakia

The ASN and IRSN "fire" experts visited the fire brigade of the Mochovce NPP in November 2012. It was an opportunity to compare fire risk prevention systems and the planned responses (human and logistical resources) in the two countries.

Sweden

From 8th to 10th October 2012, two representatives of the Swedish safety regulator (SSM) carried out discussions with ASN (Strasbourg division and head office) concerning inspection procedures and day to day relations with the nuclear licensee. On 9th October, during an unannounced inspection of several worksites on the Cattenom NPP, the SSM inspectors were able to observe ASN inspection practices. This visit confirmed the mutual benefit of continuing the technical discussions on inspection practices between the two authorities. In this context, a visit by a delegation of ASN inspectors to Sweden is scheduled for 2013.

Switzerland

The 23rd annual meeting of the Franco-Swiss Commission (CFS) on Nuclear Safety and Radiation Protection took place on

6th September 2012, in Aix-en-Provence. The meeting discussed exchanges of information on the safety of nuclear installations and radiation protection in the two countries, coordination of emergency protection measures, transport operations and radioactive waste management. This meeting was an opportunity to decide on setting up a new working group on the transport of radioactive materials and to reinforce cooperation between the two Authorities with regard to reactor safety. The meeting was followed by a visit to the construction sites of the Jules Horowitz reactor and the ITER installation in Cadarache.

The ASN Commission also received the ENSI Board in Paris, on 5th November. The fundamental differences between the missions of these two bodies were the subject of intense discussions on subjects such as independence, competence, financing and the scope of competence of the safety regulators. The subjects of security, natural external hazards, decommissioning, communication and training were also tackled. The decision was taken to repeat this meeting every two years.

Ukraine

In 2012, ASN assisted Ukraine through the Nuclear Safety Cooperation Instrument (NSCI). ASN for instance accompanied the Ukrainian nuclear safety regulator SNRCU in the development of its regulatory capacity, the analysis of the feasibility study regarding the construction of two Khmelnytsky K3 and K4 reactors and the development of the dossier for the creation of a public information centre. In 2103, ASN will continue to assist the Ukrainian regulator via NSCI projects.

3|3 ASN bilateral assistance

ASN pays close attention to nuclear installation projects in the "new nuclear countries". It considers that developing an appropriate safety infrastructure requires a minimum of fifteen years before a nuclear power reactor can begin to operate in good conditions. Such countries need to develop and put in place a legislative framework and an independent and competent safety authority with adequate financial and human resources to be able to fulfil its mission, as well as building safety capacity and developing a culture of safety and of monitoring.



Signature of the ASN-FANR bilateral agreement by Mr André-Claude Lacoste and His Excellency Hamad Al Kaabi, Ambassador and member of the FARN Board, on the occasion of the 4th Review Meeting of the IAEA Joint Convention in Vienna, 16th May 2012

The United Arab Emirates

A cooperation agreement was signed in Vienna, between Mr Lacoste, then Chairman of ASN, and Ambassador Hamad Al Kaabi, Commissioner of the Emirates safety regulatory body, the FANR, on 16th May 2012, on the occasion of the review meeting of the Joint Convention on the Safety of Spent Fuel Management.

Vietnam

In 2012, ASN ran an assistance programme in Vietnam through the Nuclear Safety Cooperation Instrument (NCSI), in order to develop its safety, safety culture and monitoring capacity.

ASN was also involved in assistance to this country via the RCF (Regulatory Cooperation Forum), a forum for discussion between safety regulators created under the aegis of the IAEA, which aims to facilitate the sharing of experience between regulators and to rationalise the assistance provided to countries looking to develop nuclear energy.

4 INTERNATIONAL AGREEMENTS

In the aftermath of the Chernobyl accident (26th 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 safety (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 the operational management of the consequences of any accidents (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. IAEA (see point 2 | 2) is the depositary of these conventions and provides the relevant secretarial services.

4 | 1 The Convention on Nuclear Safety (CNS)

The CNS concerns civil nuclear power generating 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 24th October 1996. As at 31st December 2012, it had been ratified by 75 States.

In ratifying it, the contracting parties agree to submit a report describing how they meet the obligations of the convention and apply its principles, as laid out in the IAEA safety fundamentals standard (SF-1), along with the good safety practices in their respective countries. The reports from the contracting parties are examined during a review meeting at which each party may ask questions of the others.

The first four review meetings of the Convention on Nuclear Safety were held in April 1999, April 2002, April 2005 and April 2008 at the IAEA. The fifth was held from 4th to 14th April 2011, or just a few weeks after the nuclear accident at the Fukushima NPP.

This meeting was particularly marked by the accident in Japan and one of its main conclusions concerned the organisation of an extraordinary meeting of the Convention on Nuclear Safety in late August 2012. Sixty-four contracting parties took part and on the one hand shared and discussed the measures adopted and the steps taken or planned in the light of the initial lessons from the Fukushima accident and, on the other, gave consideration to the foreseeable ways of reinforcing the effectiveness of the Convention process.

The results of this meeting include the creation of a working group on “efficiency and transparency” tasked with proposing precise measures designed to reinforce the CNS mechanism. Nine points (including strengthening the independence of national regulators, periodic safety assessments and peer reviews) were also identified as being the main conclusions of this extraordinary meeting and will require in-depth examination by the international community in 2013.

The France report drawn up for this extraordinary meeting is available on www.asn.fr, in both French and English versions.

Furthermore, the organisation meeting for the 6th CNS review meeting in 2014 was held on 31st August. During this meeting, Mr Lacoste was elected President of the Convention on Nuclear Safety for the coming three years.

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 CNS for management of the spent fuel and radioactive waste produced by civil nuclear activities. France signed it on 29th September 1997 and it entered into force on 18th June 2001.

It comprises 64 contracting parties.

The Joint Convention’s fourth review meeting was held at the IAEA from 14th to 23rd May 2012. ASN and the French National Agency for Radioactive Waste Management (ANDRA) presented the national report produced through cooperation between the General Directorate for Energy and Climate (DGEC), the General Directorate for Risk Prevention (nuclear safety and radiation protection mission - MSNR), ANDRA, the Institute for radiation protection and nuclear safety (IRSN), the Alternative energies and atomic energy Commission (CEA), AREVA, EDF and ASN.

This report presents the implementation of the obligations of the Joint Convention by all the players in France and details the latest developments and prospects in the field covered by this Convention, especially changes to European and French regulations and to radioactive materials and waste management policies. The report specifies the steps taken in France in order to take account of the experience feedback from the Fukushima accident.



Fourth review meeting of the Joint Convention – IAEA Vienna – 14th-23rd May 2012

During this fourth review meeting, the need to revitalise the mechanism of the Convention and rationalise the exchanges in order to facilitate the drafting of general conclusions at the end of the exercise was underlined.

The French proposal to set up a mechanism for comparing the review rules for the Joint Convention and those for the Convention on Nuclear Safety, to ensure that they are consistent, was adopted and put into practice. Furthermore, at the proposal of the United States, additional meetings designed to ensure follow-up between the review meetings will be organised. The next meeting, scheduled for April 2013, will continue to examine how to improve the review process.

The fifth review meeting of the Joint Convention will take place on 11th May 2015.

4|3 The Convention on Early Notification of a Nuclear Accident

The Convention on Early Notification of a Nuclear Accident came into force on 27th October 1986, six months after the Chernobyl accident. It had 114 contracting parties as at 31st December 2012.

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 the States is thus coordinated by the IAEA. Exercises are periodically organised between the contracting parties. ASN is the competent national authority for France. It is worth noting that, as soon as the accident at Fukushima occurred, Japan – a contracting party to this Convention – adhered to its provisions and informed the international community of the on-going events.

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 on

26th February 1987. As at 31st December 2012, there were 108 contracting parties.

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.

In the case of the Fukushima accident, it should be noted that the Japanese authorities did not feel that it was necessary to call on this provisions of this Convention.

Revision of these four international Conventions

The revision of the four international Conventions related to nuclear safety was a subject debated at all the international meetings subsequent to the Fukushima accident (G8, G20, OECD/NEA, IAEA, etc.). Some highlighted inadequacies in the Convention on nuclear safety with regard to transparency or the independence of the safety regulators. Others observed that, despite the critical situation in which it found itself and the opportunity to obtain support from the international community, Japan worryingly never officially activated the "assistance" Convention. These considerations will no doubt continue to be discussed in 2013.

4|5 Other conventions linked to nuclear safety and radiation protection

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

Of particular relevance is the Convention on the Physical Protection of Nuclear Material, the purpose of which is to reinforce protection against malicious acts and against misappropriation of nuclear materials. The Convention came into force on 8th February 1987. It had 145 contracting parties in 2011.

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

5 INTERNATIONAL CONFERENCES

The following table gives the main events at which ASN was a participant in 2012.

Table 2: Events in which ASN took part in 2012

Date	Place and organiser	Subject
16th-17th January	Ankara	TAIEX Event on Inspection of radiological medical devices
30th-31st January	Issy-les-Moulineaux (NEA)	11th Meeting of the EGOE
27th-29th February	Geneva	ICTR PHE Conference
7th-8th March	Washington D.C.	G8/Nuclear Safety and Security Group
13th-15th March	Washington (NRC)	24th NRC Regulatory Information conference (RIC)
18th-23rd March	Seoul	18th PBNC Pacific Basin Nuclear Conference – Meeting with Pr Kang – KINS
19th-22nd March	Vienna (IAEA)	International Experts' Meeting on reactor and spent fuel safety in the light of the accident at the Fukushima Daiichi NPP
17th-19th April	Brussels (EU)	Plim & Plex Europe Conference
18th-19th April	Washington DC	G8/Nuclear Safety and Security Group
8th-9th May	Madrid (EU)	International Workshop on Crisis Communication: Facing the Challenges (NEA)
10th-12th May	Barcelona	World Congress of brachytherapy
14th-15th May	Bratislava	7th Plenary meeting of the European Nuclear Energy Forum
14th-18th May	Glasgow	13th International IRPA Congress
14th-18th May	Salt Lake City	3rd International PLIMS Conference on NPP Life Management for Long Term Operations
14th-23rd May	Vienna (IAEA)	Meeting of contracting parties to the Joint Convention
11th-13th June	Tsuruga Japan	International workshop on Prevention and Mitigation of Severe Accidents in sodium cooled Fast Reactors
18th-20th June	Vienna (IAEA)	International Experts' Meeting on enhancing Transparency and Communication Effectiveness in the event of a Nuclear or Radiological Emergency
20th-22nd June	Prague	ISOE European Symposium 2012
24th-28th June	Chicago	ICAPP Conference
27th-31st August	Vienna	Extraordinary meeting of the Convention on Nuclear Safety
3rd-6th September	Glasgow	14th European ALARA Network Workshop - ALARA in Existing exposure situations
3rd-7th September	Vienna (IAEA)	International Experts Meeting Earthquake and Tsunami
30th Sept. – 3rd Oct.	Toronto	International Conference on Geological Repositories ICGR
9th October	Dublin	IRAC
9th-10th October	Berlin	CEN TC 351 TG32 et WG3 "Construction products: assessment of release of dangerous substances / radiation from construction products"
17th-18th October	Chicago	G8/Nuclear Safety and Security Group
22nd-25th October	Montpellier	Clays in natural and engineered barriers for radioactive waste confinement
5th-6th November	Brussels (IRSN/GRS)	14th EUROSARE Forum: Towards greater robustness in nuclear safety
3rd-7th December	Bonn (IAEA)	International Conference on Radiation Protection in Medicine

Table 2: Events in which ASN took part in 2012 (continuation)

Date	Place and organiser	Subject
4th-5th December	Washington	ASME Workshop: Forging a New Nuclear Safety Construct
4th-6th December	Washington (NRC)	International Regulators Conference on Nuclear Security
11th-13th December	Rome (IAEA)	Workshop on communication to the Public about Nuclear Safety
15th-17th December	Japan (IAEA)	Fukushima: Ministerial Conference

In 2012, ASN also organised or hosted international meetings and conferences in its premises. The list is given below.

Table 3: International meetings and conferences organised or hosted in its premises by ASN in 2012

Date	Place and organiser	Subject
1st June	Paris (ERPAN)	European Radiation Protection Authorities Network (ERPAN) meeting
22nd-24th October	Paris (ASN)	29th WENRA meeting
30th-31st October	Paris (ASN)	10th HERCA meeting
14th November	Paris (ASN)	Meeting of embassy scientific advisors in Paris

6 OUTLOOK

2013 will be a year of many significant milestones in the field of safety, both within Europe and worldwide.

For the European part, after publishing its action plan in December 2012, which takes account of the recommendations resulting from the stress tests, ASN will play an active role in all the action plans of the European countries.

As for changes to the European nuclear safety baseline, which will be officially submitted by the Commission to the member States, ASN, jointly with the relevant Government departments, will pay close attention to preserving the clarity of where responsibilities lie for the regulation of nuclear activities, pursuant to national laws and the international principles in force.

Finally, ASN is coordinating preparations for the second edition of the Conference on Nuclear Safety in Europe, which will be held on 11th and 12th June 2013, to review the progress made two years after the Fukushima accident, with all the nuclear stakeholders.

ASN will also be a driving force behind the implementation of the post-Fukushima action plan adopted by the IAEA on 22nd September 2011 (in this respect, France published the national version of this action plan at the post-Fukushima ministerial conference from 15th to 17th December 2012).

After the extraordinary meeting of the contracting parties to the Convention on Nuclear Safety in August 2012, the decisions (participation in the “efficiency and transparency” group to

reinforce the international safety framework and examination of the technical conclusions of the meeting) will need to be put into practice in 2013. It will also be up to ASN to coordinate the drafting of the France report for the 6th review meeting of the CSN (Convention on Nuclear Safety) which will take place in April 2014.

ASN also noted that there has been an extremely positive shift in the position adopted by the World Association of Nuclear Operators (WANO). ASN will be monitoring the changes to the initiatives launched by WANO and designed to reinforce international monitoring of operating safety.

In addition to dealing with these exceptional activities related to the events at Fukushima Daiichi, ASN will in 2013 also be carrying out the international business which is already under way, focusing on improvements to nuclear safety and radiation protection around the world. This aim will be pursued by maintaining strong and permanent ASN involvement in European and international bodies. Many topics need to be addressed. These concern the negotiations on the new European “basic standards” directive or the work of the IAEA’s Safety Standards Commission.

In line with its highly proactive policy of international cooperation, ASN will be looking to engage in all of these subjects.

