

## EDITORIAL



Marie-Pierre COMETS, Marc SANSON, André-Claude LACOSTE,  
Michel BOURGUIGNON and Jean-Rémi GOUZE, ASN's Commission members

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On behalf of the State, the Nuclear Safety Authority (ASN) regulates nuclear safety and radiation protection in France, to protect workers, patients, the public and the environment from the risks involved in nuclear activities and to contribute to informing the citizens.

It is an independent administrative authority, run by a Commission of five commissioners, which was created by the Act on Transparency and Security in the Nuclear Field (TSN Act) on 13 June 2006.

As for the past three years now, the ASN Commission presents the annual report on the state of nuclear safety and radiation protection in France for 2009.



Like the previous years, 2009 was relatively satisfactory in the field of nuclear installations. It was however marked by two level 2 criticality incidents, one in the Marcoule MELOX plant and the other in the Plutonium Technology Facility (ATPu) in Cadarache. This second incident was widely reported. The Commission wishes to point out that this was a serious matter and, in the same way as all the activities it regulates, ASN

dealt with it stringently and transparently, calling in the expertise of IRSN. ASN reminded CEA of the importance of a rigorous approach to the operation of its installations.

Another concern for ASN, which was confirmed in 2009, relates to the condition of the steam generators in the nuclear power plants, with EDF revealing further unexpected deterioration of them. ASN makes sure that their level of safety remains satisfactory and that plans are made for their replacement sufficiently well in advance.

In the field of small-scale nuclear activities, ASN notes progress in 2009 in the radiotherapy sector, by comparison with previous years, although the situation varies from one radiotherapy centre to another. This situation led to the suspension of operations in several radiotherapy centres until such time as safe treatment conditions are provided, and in particular until such time as there are enough radiological physicists and operators. Another subject of concern is interventional radiology, in particular for certain neurological and cardiology procedures, because the doses delivered may be high.

ASN observed promising work on the justification of gamma radiography by COFREND and various stakeholders, including the *Institut de soudure*. This work is helping to find

alternative techniques to gamma radiography inspection using iridium 192, which can have serious consequences in the event of an accident.



For 2010, the Commission considers that the key subjects for ASN are the following. These priorities reflect the strategic thinking defined in the multi-year strategic plan and which, for the period 2010-2012, concern in particular how it reports on its actions, the integrated view of nuclear safety and radiation protection, and international affairs.

### Reporting and accountability

For ASN, independence does not mean isolation. It informs the public, develops its relations with all the stakeholders, particularly the Local Information Committees (CLI), reports on its actions to Parliament and cooperates with its foreign counterparts.

As an illustration, in 2009, ASN strengthened its ties with the local press and locally elected representatives. Jointly with the Swiss federal nuclear safety inspectorate, it organised a public seminar on the seismic risk in nuclear installations and published its positions subsequent to the opinions submitted by the advisory committees, particularly with respect to the EPR instrumentation and control (I&C) system.

In 2009, ASN took part in a number of hearings organised by Commissions of the National Assembly and the Senate and by the French High Committee for Transparency and Information on Nuclear Security (HCTISN) concerning the ATPu, reprocessed uranium and the EPR. In addition to presenting this 2009 report to the OPECST and participation in the hearings, the ASN Commission aims to develop its exchanges with members of Parliament on subjects of importance to society that fall within the scope of ASN.

ASN presented France's report to the review meeting on the Joint Convention on the safety of spent fuel management and on the safety of radioactive waste management, which took place in Vienna in May 2009. In 2009, it also received the international peer review mission from the Integrated Regulatory Review Service (IRRS), organised by IAEA. The experts noted that ASN had implemented the vast majority of the recommendations made following their first mission in 2006. The corresponding report, as well as that drawn up for the Joint Convention, is available on the ASN website ([www.asn.fr](http://www.asn.fr)). ASN will be continuing in this direction by distributing these reports more widely in France and by taking part in IRRS missions in other countries.

In 2010, ASN will be increasing the transparency of its decision-making process, and at the same time as

publishing its decisions, it will also make public the corresponding IRSN opinions on the key subjects it entrusts to it and on which it relies when reaching its decisions. Since 2002, ASN has published the follow-up letters for the inspections it conducts in nuclear installations and, since 2008, those concerning its inspections of radiotherapy departments. Its aim is to publish all follow-up letters to its inspections in the industrial, research and medical fields. ASN will also ensure that the licensees meet their transparency obligations as stipulated in the TSN Act.

### Developing an integrated view of nuclear safety and radiation protection

ASN has developed an integrated view of nuclear safety and radiation protection which takes account not only of the technical and material aspects, but also organisational and human factors, security and environmental aspects. ASN is continuing significant work on overhauling the technical regulations applicable to nuclear installations.

The TSN Act requires a safety review of nuclear installations every ten years. The first 900 MWe reactors therefore began their third ten-yearly inspection outages in 2009. ASN will issue a decision on the ability of each reactor to continue operating following this third safety review. EDF also notified ASN of its desire to extend the operating life of its reactors significantly beyond 40 years. In the forthcoming discussions, ASN will be particularly attentive to ensuring that the goals of the safety review studies are aligned with the EPR safety objectives.

The Government has announced the construction of a second EPR at Penly, in association with GDF-Suez. While specifying that the arrival of a new licensee in France could help improve the level of safety of the nuclear reactors in France by bringing in new working methods, ASN has already stressed the importance of defining the governance of the project. It is ready to provide assistance for this process, to which it will be particularly attentive.

The new 2010-2012 edition of the French National Radioactive Materials and Waste Management Plan (PNGMDR) has been completed. The ASN Commission stresses the importance for nuclear safety and radiation protection that the various management and disposal solutions for all radioactive waste be implemented as rapidly as possible. This applies in particular to the disposal projects for low level long-lived (LL-LL) waste and high-level, long-lived (HL-LL) waste.

In terms of radiation protection, particularly in the medical field, ASN has since 2008 been requesting interim criteria for operation of radiotherapy centres, without waiting for sufficient radiological physicist and dosimetrist staffing

levels to be reached. These criteria were published on 29 July 2009. ASN considers that between 5 and 10 years will be needed before sufficient staff are in place and it will remain vigilant with respect to their training. In 2010, it will also be checking implementation of the now mandatory quality assurance applicable to radiotherapy centres, in particular the logging and analysis of undesirable events. The international conference organised by ASN on radiation protection of patients in the radiotherapy field also highlighted the importance of the issue of complications and side-effects in radiotherapy, which concern about 5% of patients irrespective of any accidents. ASN will monitor the progress of the corresponding studies.

Another subject on which ASN will be focusing in 2010 is the increase in doses that result from the growing use of medical imaging techniques for diagnostic and therapeutic purposes (scanner and interventional radiology).

The vocation of the French National Network of Environmental Radioactivity Monitoring (RNMRE) is widespread distribution of high-quality measurements. This quality is obtained through a process of ASN approval of the laboratories carrying out these measurements. ASN is responsible for determining the orientations of this network and IRSN is in charge of its management. Its new website, [www.mesure-radioactivite.fr](http://www.mesure-radioactivite.fr), came on-line at the beginning of 2010, providing all the environmental radioactivity measurements as well as a number of explanatory notes to help inform the public about the doses they receive as a result of nuclear activities. The ASN Commission attaches considerable importance to the development of this site.

### Expanding international relations

In the absence of European legislation on nuclear safety, the Council of the European Union (EU) adopted a directive on 25 June 2009 on the safety of nuclear installations, to which ASN made a significant contribution. This text is of great importance for the creation of a legally binding community framework on nuclear safety. The directive, which in particular obliges all EU Member States to set up a legislative framework for nuclear safety and an independent safety regulator, also makes provision for a peer review system based on the IRRS missions, and contains requirements concerning public information, training and

competence. In 2010, ASN will be monitoring the transposition of this directive, a process which should be completed in July 2011.

As it did for the siting of nuclear reactors in the new nuclear countries, the ASN Commission adopted a public stance on the production of radionuclides for medical purposes. The operating life of the reactors producing the vast majority of the world's output, including the Osiris reactor in Saclay, has now exceeded 40 years. ASN considers that the risk of scarcity of these radionuclides should in no case lead to short-cuts being taken with regard to the safety of the reactors producing them, and that European and international level discussions and debate are required. The new status of the ASN enables it to adopt a strong public stance on key issues.

ASN published a joint declaration with the British (HSE) and Finnish (STUK) regulatory authorities concerning I&C on the EPR reactor. These joint actions will be continuing. A combined analysis with HSE, STUK and the American safety regulator (NRC) of the quality of component manufacturing for the Finnish EPR will in particular be carried out. The Commission considers that the transparency of the review process and international collaboration by safety regulators on these important subjects are beneficial for the overall safety of the project. ASN will be continuing these actions with a view to harmonising nuclear safety worldwide and with the goal of achieving recognition as an international benchmark for good practice.



ASN is the authority in charge of regulating the nuclear safety and radiation protection of civil nuclear activities in France. The competence and motivation of its personnel enable it to carry out its role in full and perform its duties with rigour, efficiency and independence. It also relies on the professionalism and expertise of IRSN. It will be continuing to carry out these duties in compliance with the four values it has adopted as its watchwords: independence, competence, rigour and transparency, to ensure that nuclear safety and radiation protection progress both in France and around the world.

