

# THE YEAR 2008

Paris, March 2nd, 2009

**2008** was a relatively satisfactory year in terms of nuclear safety, but strong action was needed to ensure that the operators maintain the necessary rigour. The situation remained difficult in the area of small-scale nuclear activities: ASN inspections continued, and most medical establishments have made genuine efforts, but the situation is still very mixed.

In the area of nuclear safety, the year was marked by the strong media impact of a number of incidents. These events, of limited magnitude, concerned faulty radioactive effluent pipes resulting in release of radioactivity into the environment. ASN considers that all the nuclear operators must pay increased attention to the maintenance of the pipes carrying radioactive, toxic, flammable or explosive substances and, in general, to all the support systems of basic nuclear installations (BNI). The year also saw the drawing-up of an official report by ASN and the sending of formal notice to EDF concerning the Cruas nuclear site in application of the TSN Act for non-compliance with the regulations on pipes carrying explosive fluids.

In the area of radiation protection, ASN remains concerned by the situation regarding treatment safety in a number of external radiotherapy centres where the numbers of persons specialised in medical radiophysics (PSRPM) are still insufficient. It is up to the public authorities to remedy this situation and clearly define the transitional arrangements to be introduced in order to deal with this shortage. ASN estimates that it will take about ten years before the number of PSRPM staff is satisfactory. In addition, staff must continue the efforts undertaken to reinforce the procedures for preparation and application of treatments, organise in-centre recording and analysis of dysfunctions and notify significant events to ASN.

In the area of the nuclear installations operated by EDF, ASN considers that the safety level of these installations remains satisfactory, but that EDF must not relax its effort with regard to stringency of operation and improvement of the radiological cleanness of these plants. At a time when the third ten-year inspections of the 900 MW reactors are beginning, ASN also expects of EDF that in 2009 it clarifies its intentions regarding the service life of its fleet (**SEE SHEET 2**). Lastly, ASN is particularly vigilant with regard to the quality of the construction work by EDF on

an EPR reactor at Flamanville. This vigilance led to the suspension of work on the site for three weeks at ASN request because of non-conformities observed during the concreting of the foundation raft (**SEE SHEET 5**) and led EDF to tighten the monitoring of the site work and its subcontractors.

ASN considers that AREVA operates its installations in a satisfactory manner, but must pay attention to the level of safety of auxiliary installations such as SOCATRI and continue its efforts to ensure stringency in event notification.

ASN also considers that AREVA must intensify its work to recover the legacy waste on the La Hague site. AREVA, as owner-operator, complied with the ASN decision requiring it to remove all radioactive materials from the ATPu installation at Cadarache before 30 June 2008. In the context of the construction of the EPR reactor at Flamanville, in 2008 ASN observed difficulties in the application of the regulations by AREVA NP as well as unusual deviations in the manufacture of nuclear pressure equipment by AREVA NP and its subcontractors. It has asked AREVA NP to remedy these points.



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ASN has a relatively positive view of the operation of the nuclear installations of the French Atomic Energy Commission (CEA), and notes that CEA is making progress on topics related to control of civil engineering work and to criticality.

Nevertheless ASN expects of CEA that it reinforces the powers and the independence of its nuclear inspectorate. Lastly, it is important that the CEA fulfils its major undertakings regarding nuclear safety and radiation protection.

ASN takes a positive view of how ANDRA operates its waste facilities and is preparing for the provisions laid down by the Act on sustainable management of radioactive materials and waste of 28 June 2006. ASN is paying close attention to the progress of the procedure to identify a site for a repository for LL-LL waste. It also considers that ANDRA must maintain its capability of inspection of the waste packages that it is tasked with handling, including by destructive testing.

In the medical sector, ASN notes that healthcare professionals are beginning to join the new system of notification of events likely to affect the health of patients or workers, introduced in July 2007. In radiotherapy, 30% of the centres notified at least one event to ASN; in

nuclear medicine and interventional radiology, the first notifications were recorded in 2008. The effort must be continued and intensified in order to accumulate feedback from experience and improve radiation protection in the medical environment and the safety of radiotherapy treatments.

To improve the transparency of its action, ASN now publishes its radiotherapy centre inspection follow-up letters on its website, as it already does for the basic nuclear installations. ASN has also adjusted the communication scale used for radiotherapy incidents (SEE SHEET 4) after one year of application on a trial basis. ASN emphasises that most of the events notified in radiotherapy (98%) were rated level 1 on the ASN/SFRO scale (no effect on patient health) and that the other events were rated level 2 (moderate effects on an organ or a function). In 2008 several ASN regional divisions conducted targeted inspections in some one hundred radiology practices. This operation showed that on the whole the regulations are complied with in the majority of cases, but that a number of practices will have to implement corrective measures in order to remedy the observed deviations rapidly.

In 2008, at the request of the government, ASN worked on extending the scope of its competence to include the security of radioactive sources. The purpose of this as-yet incomplete reform is to give ASN responsibility for issuance of licences and for regulation of radioactive sources with regard to security, that is, in the context of the prevention of malicious acts. This reform should allow ASN to increase its role with regard to security issues (SEE SHEET 3), as is the case of most of the other safety authorities around the world.

In 2008 ASN, tasked with the transparency field of the TSN Act (SEE SHEET 1), took steps to implement an active policy in this area. In addition to the publication of the inspection follow-up letters, ASN now makes public the opinions of the advisory committees of experts that it consults. ASN has also posted its general policy on basic nuclear installation decommissioning on its website for public viewing (SEE SHEET 8). To improve public information about the operation of BNIs, ASN has prepared a guide for operators to better drafting of the annual reports that they have to produce in accordance with Article 21 of the TSN Act. Lastly, ASN continued its support for the local information committees (CLI) and the national association of local information committees (ANCLI), the status and responsibilities of which have been widely reinforced and which play an essential grass-roots role.

In 2008 ASN continued to call upon the high-quality expertise of the Institute for Radiation Protection and Nuclear Safety (IRSN) to define its positions. In addition, the conclusion of the IRSN deliberations leading to publication of the opinions that the Institute delivers to ASN as

part of the analysis of the files submitted to the advisory committees of experts will enhance the transparency of ASN's decision-making processes.

At international level ASN has defined and made public its doctrine on initiatives to develop nuclear plants in countries that do not yet have such plants (SEE SHEET 7). ASN considers that it would be unreasonable to expect a first nuclear plant to be commissioned in less than 15 or 20 years in these countries. As nuclear safety is a national responsibility, this time must be used to enable each country to set up a local operator capable of fulfilling its responsibilities and a competent regulatory authority with a high level of autonomy. These initiatives are also an opportunity to promote the French doctrine on nuclear safety (SEE SHEET 6).

In 2008 ASN thus consolidated its new status as an independent administrative authority, in particular for the implementation of the new administrative framework for the basic nuclear installations and of its system of incentives and penalties.

All of this has been possible only through the responsiveness and competence of the ASN staff.

