

6 ASN'S INTERNATIONAL NUCLEAR SAFETY RESPONSIBILITIES

Owing to the size of the fleet of nuclear installations it regulates, ASN is the world's number two nuclear safety authority. This position naturally gives it responsibilities that go beyond national borders and well beyond the installations exported by France. ASN attaches importance to promoting French nuclear safety policy and practices, because they can contribute to a high level of nuclear safety and should be able to act as a benchmark for many countries, in particular those wishing to develop their own policies in this field.

FRENCH NUCLEAR SAFETY POLICY AND PRACTICES DESERVE TO BE PROMOTED INTERNATIONALLY

Historically, the review processes for nuclear safety in France were based on an in-depth technical dialogue between industry and the safety organisations, of an unparalleled scope. This dialogue process gradually led to the definition of a French nuclear safety policy, which is today implemented by ASN and IRSN, its technical support organisation. This policy of course comprises universally accepted principles, such as the primary responsibility of the licensee and the need for defence in depth. But it also comprises specific features which contribute to achieving a high level of safety:

- ASN's integrated view of installation regulation: the goal is to integrate nuclear safety, radiation protection, environmental protection and work inspections, with greater importance given to organisational and human factors (OHF): individual and collective behaviour and attitudes, organisation, management;
- the inclusion of qualitative assessment, rather than simply of quantitative indicators, in the ASN evaluation of a nuclear installation's safety performance;
- the importance attached and not only in the periodic safety reviews conducted on the installations, to improving safety by drawing inspiration from more recent installations to checking conformity with their design and initial plan;
- a degree of prudence in the use of probabilistic safety studies which, given their limitations, should simply supplement the deterministic approach and not replace it;
- a clear balance of power between ASN and its technical support organisation on the one hand and the licensee and manufacturer on the other, based in particular on the competence of the ASN and IRSN staff, the status and powers of ASN and its policy of transparency.

ASN CONDUCTS A PROACTIVE INTERNATIONAL POLICY

ASN's aim is "to provide efficient, impartial, legitimate and credible nuclear regulation, recognised by the citizens and regarded internationally as a benchmark for good practice". ASN today devotes to its international actions the equivalent of 20 full-time staff, or 5% of its resources. It has set up a system of staff exchanges with its main counterparts: ASN

inspectors are seconded to foreign safety authorities (United Kingdom, Spain, United States, etc.) and vice-versa.

Multilaterally, ASN is contributing to the work being done on drafting safety documents within the IAEA (the ASN Chairman is also chair of the committee responsible for approving these documents) and to the discussions and studies being conducted under the supervision of the NEA. Two initiatives, in which ASN plays a pivotal role, are worth mentioning:

- the work of WENRA (Western European Nuclear Regulators' Association), founded at the initiative of ASN, concerning the harmonisation of nuclear safety in these various countries;
- an international cooperative programme for evaluating the safety of new reactors, called the *Multinational Design Evaluation Program* (MDEP). This initiative today brings together Canada, China, Finland, France, Japan, Russia, South Africa, South Korea, the United Kingdom and the United States. ASN chairs the *Policy Group*, while the American NRC chairs the *Steering Technical Committee*.

Bilaterally, ASN has signed cooperation agreements with twenty or so of its counterparts. It is naturally called on by countries which have acquired French technology installations, which is an opportunity to spotlight French nuclear safety practices. For example, ASN helped train the Chinese engineers in nuclear safety and assisted the Chinese safety authority with the regulation and supervision of the reactors at Daya-Bay and Ling-Ao.

ASN INTENDS TO EXPAND SUPPORT FOR ITS FOREIGN COUNTERPARTS

ASN is being increasingly contacted by its foreign counterparts, both owing to its experience with regulation of the EPR reactor and, more generally, for a presentation of French nuclear safety policy and practices. Together with IRSN, ASN intends to implement several types of support actions for its counterparts.



Signing of an agreement between ASN and NNSA (Chinese nuclear safety authority) in Paris on 18 February 2008



Speech by the French presentation's official recorder at the AIEA Nuclear Safety Convention in Vienne (Austria), 22 April 2008.

- a) For countries which already have a nuclear infrastructure, support with control of existing or new installations:
 - help with defining a technical design review programme;
 - help with defining construction regulation and supervision;
 - making of technical analysis of the design files;
 - help with worksite inspections;
 - monitoring the manufacture of nuclear equipment.
- b) For countries without a nuclear infrastructure, help with setting up a regulatory framework and a safety authority.
- c) Development of a proactive policy by ASN to offer internships for trainees from foreign authorities, with a range of internships of various lengths.
- d) Organisation of technical seminars or training sessions for foreign authorities.
- e) Creation of a “certification” process for new nuclear installations, in particular applicable to installations which are not to be built in France.

TO ENABLE THESE ACTIVITIES TO GROW, ASN IS FAVOURABLE TO CHANGES OF ITS FINANCING SYSTEM

The work done by ASN to support its counterparts, including that carried out with the assistance of IRSN, must not in any way harm its regulatory work in France. Therefore the action taken by ASN and IRSN, over and above its regular

international relations (in other words when there is no reciprocal benefit), should as a general rule receive payment. The same applies for ASN review of reactor models which are not to be built in France and of which it is aware.

New financing sources are therefore required. ASN must also be able to hire staff based on contracts concluded with foreign authorities.

OUTLOOK

The British and Chinese safety authorities have already requested ASN assistance with evaluating the safety of the EPR reactor.

In 2009, ASN is therefore arranging a two-year secondment to the British safety authority of an ASN engineer who took part in the EPR reactor safety analyses. A programme of technical discussions to look at the result of the assessment of technical files and, as far as is possible, harmonise the stances adopted, was also defined.

Similarly, ASN is discussing with the Chinese safety authority how to provide assistance with monitoring the construction of nuclear pressure equipments for the two EPR reactors ordered by China.

These actions by ASN help to promote French nuclear safety policy and practices and will contribute to achieving a high level of nuclear safety worldwide.