

Regulatory Updates

Nuclear safety...

ASN submits for public consultation its draft position statement on the orientations of the generic phase of the 4th PSR of the 1300 MWe reactors

October 2019

In 2017, EDF initiated the fourth periodic safety review (PSR) of its twenty 1300 MWe nuclear power reactors. As with the previous PSR and in order to take advantage of the standardised nature of its reactors, EDF intends to carry out this PSR in two stages:

- a "generic" PSR phase, which covers subjects common to all the 1300 MWe reactors;
- a "specific" PSR phase concerning each individual reactor and which is scheduled to run from 2027 to 2035.

The "generic" PSR phase begins with a definition of the objectives assigned to this PSR. For this purpose, EDF transmitted a "PSR guidance file" which specifies its objectives.

In its draft position statement, ASN intends to ask EDF to modify or add a number of general objectives for this safety review, to consider certain baseline requirements in the safety reassessment of its facilities and to add topics for study to its review programme. The requests concerning the methods and hypotheses to be used in the studies are to a large extent based on the requests made by ASN in 2016 for the 4th PSR of the 900 MWe reactors.

An opinion on this ASN draft position statement has been issued by the Advisory Committee for Nuclear Reactors.

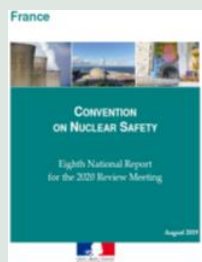
From 17 October to 17 November 2019 ASN submits for public consultation its draft position statement on the orientations of the "generic" phase of this 4th PSR of the 1300 MWe reactors operated by EDF.

 [For more information
www.french-nuclear-safety.fr](http://www.french-nuclear-safety.fr)

Publication of the eighth French national report drawn up in preparation for the review meeting of the Convention on Nuclear Safety to be held in 2020

Every three years, contracting parties of the Convention on Nuclear Safety (CNS) have to release a National Report.

The [report for France](#), prepared and coordinated



by ASN, was posted on the IAEA website on 9 August 2019. While respecting the agreed template and the general structure of the Convention, it also aims at highlighting the main changes since the last CNS review meeting as well as the safety outlook for the next three years.

Public dialogue on improving the safety of French 900 MWe nuclear reactors: outcomes of a unique approach

October 2019

From 6 September 2018 to 31 March 2019, in accordance with its mission, France's



High Committee for Transparency and Information on Nuclear Security (HCTISN) organized a [public dialogue on improving the safety of the 900 MWe reactors of the French nuclear fleet in the framework of their 4th periodic safety review](#).

Several players contributed to conducting this public dialogue:

- The HCTISN, which originated the process and made sure the consultation would be carried out in accordance with the main principles relating to information and public participation;
- A steering committee, composed of 5 members appointed by the HCTISN, which defined the dialogue process and ensured its proper implementation;
- An operational committee including the main players in nuclear power plant safety: EDF, the ASN, the IRSN, and the National Association of Local Information Committees and Commissions;
- Two guarantors of the National Commission for Public Debate, chosen by the HCTISN, who ensured the proper conduct of the consultation.

The dialogue, open to all citizens, was designed to:

- Inform citizens about the improvement measures proposed by EDF with a view to continuing the operation of its 900 MWe nuclear reactors beyond 40 years;
- Gather their views on those measures and on the issues to be considered during the "generic" (see the definition in the column at left) phase of the reactors' 4th periodic safety review – which will end in late 2020 with an opinion from ASN;
- Involve the public in this way right from the beginning of the review process, during the "generic" phase which concerns all the reactors, before the public inquiries that will be held over the next decade for the reactors concerned.

The key figures of the consultation (number of meeting organized, number of participants, etc.), the issues raised by the public as well as the five recommendations adopted by the HCTISN are [presented on the ASN website](#).

ASN took part in several working meetings on the margins of the IAEA General Conference in Vienna

October 2019

Bernard Doroszczuk, ASN Chairman, and several members of the ASN Commission and Director General's office, took part in various meetings with the heads of the nuclear safety regulators organised in Vienna from 16 to 20 September 2019, in the margins of the IAEA General Conference.

The ASN Chairman took part in the 13th meeting of the MDEP (Multilateral Design Evaluation Programme) strategy group. The MDEP is an association of sixteen safety regulators, created in 2006; the programme set up a cooperation framework which is particularly useful for evaluating new nuclear reactor designs. This year, the various subjects dealt with by strategy group – which brings together the heads of the safety regulators every year to define the orientations of the programme – included the question of the future of this association: this is because, for most of the reactor designs concerned – the EPR, the American AP 1000 and the Korean APR 1400 in particular – the MDEP's work has now entered its final phase and the programme is moving towards closure in 2022. ASN and its partners concerned (Finland, United Kingdom and China) are envisaging the creation of a new cooperative framework specifically for operation of the EPR reactor. The MDEP will also be organising a conference in China in 2020 at which the results of its work will be presented.

Bernard Doroszczuk also met counterparts from the nuclear safety regulators of eight other countries, brought together under the umbrella of the INRA (International Nuclear Regulators' Association). All underlined the major challenge involved in making preparations for the training of experts in order to ensure efficient renewal of the staff of all the regulators. Mr. Doroszczuk notably stressed the need to pass knowledge on to the next generation, recalling that in the nuclear field, all projects are long-term.

Together with Rumina Velshi, his counterpart in the Canadian Nuclear Safety Commission (CNSC), he signed a memorandum of understanding on cooperation and information exchange between the two regulators, renewed for a five-year period.

Finally, the ASN Chairman met his Swedish counterpart, Nina Cromnier, Director General of the SSM (Swedish Radiation Safety Authority). Both were pleased to note the strong bilateral relations maintained between ASN and the SSM and confirmed that the ASN headquarters in Montrouge would host the next bilateral meeting between the two authorities in October 2019.

The review group issues its opinion on the evaluation of the management of bituminous nuclear waste packages requested by the Minister responsible for Energy and the ASN Chairman

September 2019

Nearly 80,000 packages of nuclear waste have been processed by bituminisation since 1966. 50,000 of these bituminous waste packages are in principle to be disposed of in the Cigéo project facility.

In its 11 January 2018 opinion on the safety options dossier (DOS) submitted by Andra for the Cigéo project, ASN expressed reservations concerning the disposal of these waste. An expert assessment was thus ordered by the Minister responsible for Energy and ASN in June 2018, in order to evaluate:

1. The scientific knowledge relating to the characterisation and behaviour of bituminous waste;
2. The pertinence of ongoing research into the neutralisation of the chemical reactivity of the bituminous waste packages;
3. The pertinence of Andra's studies aimed at modifying the design of Cigéo in order to preclude the risk of runaway exothermal reactions.

The review report on the management of bituminous waste was submitted to the authorities on 28 June 2019 and then presented to the radioactive waste producers, to the Andra, to the IRSN and to the National plan for management of radioactive material and waste (PNGMDR) Working Group in September 2019. With regard to the three subjects above, the review group considers that:

1. Additional experiments would be able to confirm the conclusions of the prior work done by CEA regarding the temperatures as of which energetic reactions can occur;
2. The industrial feasibility has yet to be proven. The group believes it unlikely that such a facility could be commissioned before 2040, but considers that studies should be continued and that it would be worthwhile re-examining the benefits of chemical dissolution of the bitumen before finally choosing which process is to be industrialised, if any;
3. The studies carried out by Andra should in the short-term lead to a design whose safety could be convincingly demonstrated.

Within the framework of the fifth edition of the PNGMDR, ASN and the General Directorate for Energy and the Climate (DGEC) will clarify the conclusions they draw from this review and the additional work to be done by the producers and by Andra in the coming years.



[For more information
www.french-nuclear-safety.fr](http://www.french-nuclear-safety.fr)

Flamanville NPP 1 and 2: ASN places the site under reinforced surveillance

September 2019



On 4 July 2019, the ASN Director General summoned the Director of the Flamanville 1 and 2 NPP to a hearing and asked him to submit an action plan to reinforce the management and oversight of operational activities.

He notably underlined deficiencies in the technical skills involved in certain operational activities, the high number of significant events linked to maintenance defects and contractor oversight shortcomings, poor management of certain maintenance operations and the inadequate quality of the documents transmitted to him for the ten-yearly outage inspection of reactor 1.

The reinforced surveillance decided on by ASN will notably entail additional checks, with particular attention being paid to the implementation of the action plan defined by EDF following the summons issued to the NPP Director. By means of inspections, ASN will regularly check the effectiveness of the improvement steps taken by EDF.

Three topics will be subject to particularly close examination:

- management of maintenance and operating activities and the corresponding documentation;
- management of operating experience feedback, in particular the reporting of significant events to ASN;
- EDF's oversight of safety and the priority given to safety issues in the decision-making process.

The Flamanville NPP comprises two 1300 MWe reactors, commissioned in 1985 and 1986. Reactor 2 is currently shut down for its third ten-yearly outage inspection. Reactor 3, which is an EPR currently under construction on the same site, is not concerned by this reinforced surveillance process.

Two EDF NPPs are currently placed under reinforced surveillance by ASN: Belleville-sur-Loire and Flamanville 1 and 2.



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www.french-nuclear-safety.fr](http://www.french-nuclear-safety.fr)

ASN is keeping a close watch over irregularities detected at the metallurgist Aubert et Duval

August 2019

In December 2018, Eramet (a French mining and metallurgical group) published on its website a report of nonconformities in the quality management system within its Alloys branch, which includes the company Aubert et Duval. This subsidiary manufactures numerous metallurgical products that enter into the composition of diverse equipment items (studs, pump components, pressure equipment, etc.), some of which are intended for the nuclear industry.

The Eramet group informed EDF of this situation on account of the number of potential deviations that could affect the NPPs operated by EDF, and EDF immediately established an inspection plan. This inspection plan was communicated to ASN.

In parallel with this, ASN asked the other basic nuclear installations licensees to check whether any equipment in their facilities having serious implications for safety had been manufactured using materials from the Auber and Duval workshops.

The identified irregularities consisted mainly in inappropriate processing of certain internal anomaly sheets resulting from the manufacturing process, and in modifications of laboratory data.

An initial assessment shows there to be no impact on the safety of installations. Notably, over the verification perimeter investigated so far (4,500 internal anomaly sheets and more than 700 data items for the 2011-2018 period), EDF has found more than 200 deviations requiring specific processing, but concludes that none of the deviations observed renders a metallurgical product supplied by Aubert et Duval unfit for its current use. At this stage of the investigations, the information ASN has received from EDF confirms this analysis.

The investigations carried out further to the discovery of these nonconformities have revealed the application, within entities internal to Aubert et Duval, of instructions which aimed to modify results in order to render them administratively compliant with the technical requirements. In application of Article 40 of the Code of Criminal Procedure, ASN has reported these practices - which could amount to fraud - to the Public Prosecutor.

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