French Nuclear Safety Authority
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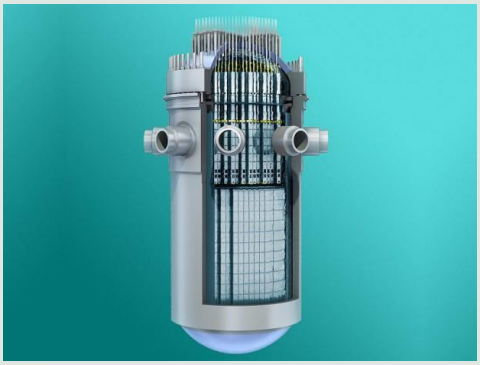
Regulatory Updates

Nuclear safety...

ASN has authorised commissioning and operation of the Flamanville EPR reactor pressure vessel in certain conditions

October 2018



On 9th October 2018, ASN authorised the commissioning and operation of the Flamanville EPR reactor pressure vessel, subject to the performance of a test programme to monitor the thermal ageing of the steel in the residual carbon positive macro-segregation zone, plus specific inspections during operation of the facility. As the current state of knowledge does not enable the feasibility of these inspections to be confirmed for the vessel closure head, ASN set a service life limit at end of 2024 for the existing vessel closure head.

This authorisation is based on the conclusions of the ASN opinion of 10th October 2017 concerning the anomaly in the chemical composition of the steel of the vessel closure and bottom heads of the Flamanville EPR reactor, as well as on the additional data transmitted by Framatome in its authorisation application of 13th July 2018.

The examination of this additional information by ASN did not compromise the conclusions of the 2017 opinion. Moreover, ASN verified compliance with the technical and regulatory requirements other than those concerning the chemical composition of the steel in the reactor vessel closure and bottom heads.

The ASN draft resolution was opened to public consultation on its website between 3rd and 24th September 2018. This consultation received more than 500 contributions. The summary of this consultation is available on the ASN website.

Following this consultation of the public and that of the Standing Sub-committee for Pressure Vessels of the High Council for the Prevention of Technological Risks, ASN supplemented its resolution in order to clarify certain points underpinning the requirements of article 2 of the resolution, concerning the thermal ageing programme and the technical feasibility of the pressure vessel closure head replacement operation.

For more information
www.french-nuclear-safety.fr

The ASN Chairman has completed his mandate at the head of ENSREG

October 2018

On 4th October 2018, the ASN Chairman, Mr Pierre-Franck Chevet chaired his last (extraordinary) ENSREG meeting in Brussels. ENSREG (European Nuclear Safety Regulators Group) brings together experts from the European Commission and member states of the European Union who are represented by national delegations, which are half composed by heads of safety regulators and half by representatives from Ministries of Environment or Energy (two representatives per delegation). France is represented within the ENSREG by the Chairman of the ASN and by the General Directorate for Energy and Climate (DGEC).

Pierre-Franck Chevet chaired ENSREG since November 2015; his term as Chairman of ASN expiring on 8 November next, the meeting of 4 October 2018 was partly devoted to the appointment of his successor at the head of ENSREG.

Taking into account the planned movements at the head of several European regulatory bodies (Sweden, Spain, in particular), it was decided to transfer, on an interim basis, the presidency of ENSREG to Mark Foy (Chief Inspector of the Office for Nuclear Regulation - ONR, the British regulator) until 31 March 2019.

For more information
www.french-nuclear-safety.fr

The ASN Chairman at the 62nd IAEA General Conference

September 2018

On 18th September 2018, the ASN Chairman, Mr Pierre-Franck Chevet, went to the 62nd General Conference of the International Atomic Energy Agency (IAEA).

On this occasion he had a meeting with Mr J-C Lentijo, the IAEA's Deputy Director General of Department of Nuclear Safety and Security, to discuss the safety issues facing ASN, as well as IAEA work concerning the safety-security interface.

He met his counterpart at the NRC (American nuclear safety regulator), Ms K. Svinicki, accompanied by the new Director General, Ms M. Doane. Mr Chevet and Ms Svinicki renewed the bilateral cooperation agreement between the two regulatory authorities. In addition, safety issues, questions concerning the development of NRC strategy – on this point Ms Svinicki expressed her interest in ASN's multi-year strategic plan, inspectors' exchanges and new appointments to the NRC, were discussed on this occasion.

Mr Chevet also signed a cooperation agreement with Mr Al Kaabi, ambassador and Deputy Chairman of the Board of the FANR (United Arab Emirates federal authority for nuclear regulation). At the same time he met the Director General of this authority, Mr C. Viktorsson. ASN participation in training Emirate inspectors was discussed, as was the possibility of longer-term personnel exchanges.

Finally, Mr Chevet took part in the 42nd meeting of INRA (International Nuclear Regulators Association) chaired by South Korea. This meeting discussed cybersecurity issues and the challenges relating to decommissioning, as well as the revision of the IAEA INES manual, in the presence of the representative in charge of the project, Ms E. Buglova.

For more information
www.french-nuclear-safety.fr

Sixth bilateral meeting between ASN and the Japanese nuclear safety regulator

September 2018

An ASN delegation headed by its Chairman, Mr Pierre-Franck Chevet, went to Japan to take part in the 6th bilateral meeting with the Japanese nuclear safety regulator (NRA). This meeting was held on 3rd and 4th September 2018 in Tokyo.

In addition to topical subjects in both countries, the presentations and discussions concerned reactors' ageing management (French and Japanese approaches and European review of reactors' ageing, linked to the 2014 nuclear safety directive), the decommissioning of nuclear facilities and radioactive waste disposal projects.

This meeting highlighted common areas of interest for future cooperation, more particularly decommissioning and the management of legacy radioactive waste.

Mr Chevet and Mr Toyoshi Fuketa, Chairman of the NRA, signed the renewal of the cooperation agreement between ASN and NRA for a period of 5 years.

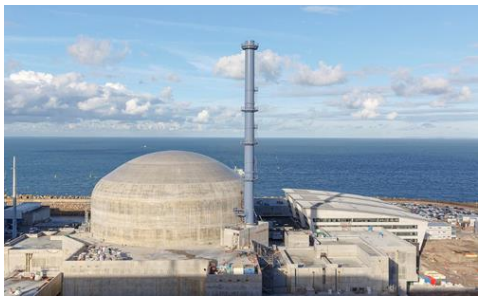
Publication of a guide on radon health monitoring in water intended for human consumption

September 2018

On September 2018, a guide concerning the health monitoring and the management of health risks linked to the presence of radon in water intended for human consumption has been published (WIHC) on the ASN website. In this report:

- The first part describes the scope of the Council directive 2013/51/Euratom of 22nd October 2013 and the potential health effects linked to radon.
- The second part concerns the organisation of health monitoring for measuring radon in WIHC.
- The third and fourth parts present methods for managing situations in which the radon quality reference is exceeded in WIHC, as well as for informing the population.

For more information
http://www.french-nuclear-safety.fr/Information/Publications/Publications-for-the-professionals



Flamanville EPR project

July 2018

ASN has informed EDF of the conditions for resuming certain welding operations on the main steam transfer pipes of the Flamanville EPR reactor. The welding operations involved are restricted to those performed using the "TIG orbital" process[1] which enables high mechanical performance to be achieved.

These pipes have been the subject of design and production deviations about which ASN communicated on 23rd February and 11th April 2018[2].

On the basis of the inspections already carried out on these pipes, EDF asked for the opinion of ASN before resuming certain welding operations using the TIG orbital process on the main steam transfer pipes.

ASN considers that the mechanical properties of the welds obtained with this process make it possible to envisage resuming the welding operations under certain conditions.

ASN requires EDF to put in place an organisation and means of monitoring that will prevent recurrence of the observed deviations. EDF will also have to demonstrate that these welding operations do meet the requirements of the break preclusion baseline.

Starting of these operations remains subject to ASN approval.

For the records, in May 2018, ASN has published its Information Letter No.20 reporting on its actions for monitoring the Flamanville 3 EPR reactor construction site and the various manufactured items intended for it.

[1] TIG orbital welding is an arc welding process using a non-consumable electrode. TIG is an acronym for Tungsten Inert Gas. Tungsten refers to the electrode and Inert Gas is the type of plasmagenic gas used. The arc is created between the electrode and the part to weld with gas shielding. The arc rotates continuously at least 360° around a fixed part (such as a tube).

[2] On 10th April 2018, ASN carried out an inspection on the Flamanville EPR reactor construction site to examine how the welds on the main secondary systems were checked following EDF's discovery of welding flaws, which had not been detected during the manufacturing checks.

For more information
www.french-nuclear-safety.fr

Publication of three decrees reinforcing protection of the public, patients and workers in the field of nuclear activities

June 2018

On 5th June 2018, two decrees concerning the protection of workers against the risks arising from ionising radiation and one decree containing various nuclear provisions were published in the French Official Gazette. These decrees allows correct transposition into the French law of the Council Directive 2013/59/Euratom of 5th December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation. They more specifically modify the regulatory parts of the Labour, Public Health, Environment and Defence Codes, and thus supplement the regulatory oversight of certain nuclear activities. These decrees:

- Update the system of radiation protection for all workers liable to be exposed to ionising radiation during the course of their professional activities, with a more consistent and comprehensive regulatory framework. Also monitoring of exposure to radon is extended to all workplaces: in basements and on ground floors, whereas previously, only underground environments were subject to mandatory monitoring.
- Reinforce the general protection of the population and of persons exposed for medical purposes, with the creation of additional tools as regards to the effectiveness of the oversight of nuclear activities: the possibility of implementing land use restrictions on sites contaminated by radioactive substances and monitoring the protection of certain sources of ionising radiation (in particular those used in industry) against malicious acts.

Most of the provisions will come into force on 1st July 2018. In the coming months, ASN will continue with detailed, substantive work with the Government and the professionals, for the production of Ministerial orders or of its own resolutions.

For more information
www.french-nuclear-safety.fr

French Nuclear Safety Authority
(Autorité de sûreté nucléaire)

15, rue Louis Lejeune - CS 70013
92541 Montrouge cedex -France

Tel.: +33 1 46 16 40 00
Email : info@asn.fr

www.french-nuclear-safety.fr