

Regulatory Updates

Nuclear safety...

ASN rates a significant safety event affecting the emergency diesel generator sets of several NPPs at level 2 on the INES scale

February 2020



On 31 January 2020, EDF reported a significant safety event concerning seismic resistance defects on certain equipment contributing to the operation of the emergency diesel generator sets of several of its 1300 MWe reactors.

The emergency diesel generator sets provide a redundant electrical power supply to certain safety systems in the event of the loss of off-site electrical power. If off-site electrical power supply is lost as a result of an earthquake, the operation of the emergency diesel generator sets could no longer be guaranteed owing to these defects.

The defects identified during the inspections stipulated by ASN in its resolution 2019-DC-0662 of 19 February 2019 are of three types:

- incorrect installation of piping elastomer couplings;
- corrosion of certain portions of the pipes or their supports;
- connection faults in certain electrical cabinets.

This event had no consequences on the personnel, nor on the environment. However, given the potential consequences of a malfunction of the two emergency diesel generator sets of a given reactor in the event of an earthquake: it was rated level 2 on the INES scale for [eight reactors](#) and level 1 for [eight other reactors](#), where the scope of the flaws was lesser and would not have led to the loss of the two emergency diesel generator sets in the event of an earthquake.

For the reactors concerned, all of the defects detected were repaired or, with regard to the incorrect installation of certain elastomer couplings, were subject to reinforced monitoring until the next reactor outage, when they will be replaced. In October 2019, similar defects were found by EDF on the emergency diesel generator sets of some of its 900 MWe reactors and were the subject of [a significant event rated level 1 on the INES scale](#).

ASN publishes guides in English regarding the decommissioning and remediation of basic nuclear installations

February 2020

In France, once a basic nuclear installation (BNI) is definitely shut down, it must go through the decommissioning and remediation process, with the end goal of achieving a predetermined final state in which all the hazardous substances have been removed. Accomplishing these decommissioning operations can often present a technical and project management challenge to licensees.

ASN issues the following three guides to provide its recommendations for operators of BNIs of what practices for decommissioning and site remediation it considers to satisfy the regulatory objectives. These guides may apply to sites current in operation that are undergoing partial decommissioning or performing remediation activities at a specific location (e.g. soil remediation).

With the aim of sharing information at an international level and maintaining collaboration with international counterparts, these three ASN guides have been translated into English.

Guide 6: Final shutdown, decommissioning and delicensing of basic nuclear installations in France

At the end of their operation cycle, basic nuclear installations (BNIs) are shut down and undergo a decommissioning process, with the end objective being delicensing of the site and release of the land for other activities. The term decommissioning generally covers all of the activities carried out after shutdown that are performed in order to achieve a pre-defined end state. These activities include cleaning and dismantling of equipment and structures, remediation of the grounds and disposal of all waste. This guides outlines the decommissioning process.

Guide 14: Complete post-operational clean out methodologies acceptable in basic nuclear installations in France

All basic nuclear installations (BNIs) evolve over the course of their operation. As certain areas or buildings change or are demolished, the licensee may be required to perform post-operation clean-out activities to eliminate contamination. This guide lays out ASN's recommendations regarding the remediation methodology to be used by licensees.

Guide 24: Management of soils contaminated by the activities of a basic nuclear installations in France

This guide is intended for basic nuclear installation (BNI) operators at sites where soil contamination leading to the undertaking of a remediation or soil management procedure has been detected. The guide outlines the procedure for managing and cleaning contaminated soils, including classification, excavation, and disposal of the soil. The guide was developed in conjunction with IRSN and ASND to clarify and harmonize the guidance relating to soil remediation in documents issued by several organizations.

ASN Chairman meets his Polish counterpart in Warsaw

February 2020



Bernard Doroszczuk (on the left on the picture), Chairman of ASN, met on Monday 3 February 2020 with his counterpart, Dr Łukasz Młynarkiewicz (on the right on the picture), at the headquarters of the Polish Nuclear Safety Authority (PAA), in Warsaw. This meeting took place in the context of President Macron's official visit to Poland.

The talks focused on the continuation of the cooperation between ASN and PAA, which began in 2012, and on its possible development in case Poland decides to acquire nuclear power reactors.

The two authorities maintain close relations; a bilateral meeting could be held in Poland this year. This will provide an opportunity to exchange views on the regulation and oversight of nuclear installations, in particular with regard to the design and construction phases.

ASN New Year's greetings to the press

January 2020



The members of the ASN Commission and O. Gupta, ASN DG (left)

On the occasion of the New Year, ASN – through its Chairman Mr. Bernard Doroszczuk – presented its greetings to the press on 23 January, at its Montrouge headquarters, in the presence of members of the Commission and the Director General.

The ASN Chairman recalled that 2019 had been a dense year, marked by serious subjects which will determine the nuclear safety and radiation protection actions for 2020:

- The ASN position statement of June 2019 concerning the **repair of the Flamanville 3 EPR containment penetration welds**;
- The joint ASN/ASND position statement on **CEA's strategy for the recovery and packaging of legacy waste and the decommissioning of its facilities**;
- **ASN's active participation in the public debate on the 5th edition of the National Plan for Radioactive Materials and Waste Management (PNGMDR)**;
- **The conclusion of the work done by the Steering committee for managing the post-accident phase of a nuclear accident or radiological emergency situation (Codirpa)** (carried out over the period 2014 – 2019);
- The currently ongoing in-depth examination at ASN and IRSN of the studies into the **generic part of the 4th periodic safety review of EDF's 900 MWe reactors**.

Mr. Doroszczuk more particularly highlighted:

1) In the nuclear field:

- **The greater awareness on the part of the nuclear licensees of the industrial challenges facing them collectively.**

Over and above the efforts made by the nuclear sector to maintain the skills level essential to ensure the quality of its work and the safety of its facilities, the inspections performed by ASN and the initial lessons learned from the action plan against irregularities confirmed the need for certain players of the sector to strengthen their professional rigorousness.

With regard to the orientations of the plan presented by EDF, in order to address the demands of the Government, Mr. Doroszczuk stressed *"that they should not only be targeted on new construction projects being carried out by the sector, but deployed immediately with regard to significant maintenance work on the facilities in service and to the complex legacy waste recovery and decommissioning project"*.

Mr. Doroszczuk also recalled that all the licensees and companies in the nuclear sector must mobilise to *"more precisely define the steps to be taken, on the basis of their own operating experience feedback"*.

2) In the medical field:

- **The high level of radiation protection for patients** who benefit from diagnostic or therapeutic procedures using ionising radiation, **even if organisational shortcomings** still persist in certain centres.

ASN will be paying particular attention to the risks arising from the significant workload in the units in the light of the human resources available in a medical sector subject to considerable pressure, as well as the cumulative effect of the doses to which the health professionals can be exposed, notably when using fluoroscopy-guided interventional practices in the operating theatre.

In this context, ASN restates its strategic priorities, which more particularly consist in:

- **Continuing to implement the graded approach to nuclear safety and radiation protection oversight** in the light of the issues involved and how those in charge of the activities, or the licensees, carry out their responsibilities.
- **Consolidating its working** by reinforcing its management independence through the creation of a budget programme dedicated to nuclear safety and radiation protection, under the responsibility of the ASN Chairman.
- **Encouraging the stakeholders to anticipate medium/long-term strategic subjects far earlier**, such as the management of radioactive materials and waste, the management of decommissioning, the need for available technical resources within the sector, or the interfaces between energy policy and the ability to maintain margins.

ASN position statement on the generic phase of the 4th periodic safety reviews of the 1300 MWe reactors

December 2019

In 2017, EDF initiated the 4th periodic safety review (PSR) of its twenty 1300 MWe NPPs, which is aiming for continued operation beyond 40 years. As with the previous PSR and in order to take advantage of the standardised nature of its reactors, this PSR is conducted in two stages:

- a "generic" phase, which covers subjects common to all the 1300 MWe reactors;
- a "specific" 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.

On 11 December 2019, ASN issued a position statement on the orientations of the "generic" phase of the 4th PSR of EDF's 1300 MWe reactors.

ASN considers that the general objectives set by EDF for this review are acceptable in principle. However, it asks EDF to modify or supplement these general objectives for this safety review, to consider certain baseline requirements for reassessment of the safety of its facilities and to add study topics to its review programme. The requests made by ASN are to a large extent based on those made in 2016 for the 4th PSR of the 900 MWe reactors.

Following the generic studies phase, ASN will also issue a position statement on the adequacy of the modifications planned by EDF.

For the particular purpose of the 1300 MWe reactors 4th PSR, ASN wished to promote broader participation by the stakeholders as of the "generic" phase objectives definition stage. Thus ASN's position was the subject of a discussion meeting with the stakeholders (members of the [HCTISN](#), the [ANCCLI](#) and CLIs, plus qualified personalities) at the ASN headquarters on 16 October 2019 and a public consultation on the ASN website from 17 October to 17 November 2019.

The comments collected led ASN to ask EDF to produce a summary at the end of the "generic" PSR phase, presenting the safety differences that will persist between the 1300 MWe reactors and the Flamanville EPR reactor, and to reformulate the request concerning organisational and human factors.

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