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# Regulatory Updates

## ASN publishes the closing report for the action plan defined following the European stress tests on nuclear power plants *April 2021*

#### Following the accident at the Fukushima NPP, the European Council asked for stress tests to be carried out. Their procedures were defined by the WENRA association of Western European nuclear regulators. These tests involved verifying the robustness of the European NPPs to the types of situations that the Fukushima NPP had experienced: extreme earthquake, extreme flooding, total loss of electrical power supplies, total loss of heat sinks and melting of the reactor core. These tests not only concerned the technical provisions designed to prevent the total loss of electrical power supplies and cooling, as well as core melt, or to mitigate the consequences thereof, but also the organisational preparedness for management of extreme situations.



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In December 2012, ASN published a national action plan in response to the recommendations resulting from the European stress tests peer review and the 2nd extraordinary meeting of the Convention on Nuclear Safety held the same year. This action plan included the ASN requirements of 26 June 2012 aimed at increasing NPP robustness to extreme situations beyond their existing safety margins.

The closing report presents the provisions defined by EDF to enable the actions of the plan to be completed and the recommendations resulting from the peer review and the ASN requirements to be addressed.

These provisions notably contribute to improving protection against natural hazards and the loss of the safety systems as well as to improving the management of a severe accident by deploying means such as the EDF's nuclear rapid intervention force (FARN) or commissioning an ultimate backup

#### Nuclear safety...

electricity generating set on each of the 56 nuclear reactors in service. In addition to the provisions of the action plan, additional changes are made to the French NPPs as part of the continuous safety improvement process, in particular during the periodic safety reviews.

## See here <u>the Closure report of the</u> <u>action plan European stress tests</u>

## Spent nuclear fuel storage capacity: the ASN Commission called EDF and Orano to a hearing

#### March 2021

On 11 February 2021, the ASN Commission called Mr. Lewandowski, Director of EDF's nuclear and thermal power plant fleet (DPNT) and Mr. Knoche, CEO of Orano to a hearing. The hearing concerned EDF's spent fuel management strategy, in which the Orano group's installations play an essential role.

Noting that EDF will fail to meet the deadline set by the 4th National Radioactive Materials and Waste Management Plan (PNGMDR) for the submission of an application for a license to create new storage capacity, the ASN commission called EDF to a hearing on 18 June 2020 so that it could present its strategy for increasing storage capacity, the contingency measures envisaged and the intended schedule.

During the June 2020 hearing, EDF confirmed that the commissioning of its centralised storage pool project was scheduled for 2034, even though its existing capacity could become 2030. saturated bv The ASN Commission thus wished to hear EDF and Orano so that they could present EDF's strategy for dealing with this delay in the project, the measures envisaged and their implementation schedule, in order to guarantee safety.

During the hearing of 11 February 2021, EDF presented its forecasts regarding the volumes of spent fuels to be stored, the updated deployment schedule for a centralised storage pool, and the three countermeasures examined to deal with the delay in this project: greater use of MOX fuel in the reactors, densification of the storage pools at La Hague and dry storage of spent fuels.



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EDF envisages locating the centralised storage pool at La Hague, on a site currently belonging to Orano. This project, as well as the three countermeasures studied, therefore involves Orano. Orano and EDF thus presented ASN with the way they would manage their interfaces. Orano also presented the technical challenges associated with these various projects, as well as the way in which it intends to manage the corresponding risks.

The ASN Commission reminded EDF of the strategic [3] nature of this centralised storage pool project for the overall safety of the nuclear installations. It urgently reminded EDF and Orano of the importance of advance planning and management of countermeasures the to be implemented. Their safety objectives shall notably be defined conservatively, taking account of requirements applicable to new facilities and of their envisaged implementation duration.

EDF stated that it had recently forwarded its project to the National Public Debates Commission and aims to file its creation authorisation application in 2022. ASN considers that EDF must take all necessary steps to file its application at the earliest possible opportunity. When questioned by ASN on its technical capacity, at a time when considerable demands are being placed on its engineering capabilities, EDF restated its commitment to the construction of this storage pool and to allocating the engineering resources needed to complete this project within the announced time-frame.

## ...and Radiation Protection

## Ms Laure Tourjansky is appointed ASN Commissioner

April 2021



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By decree of the President of the Republic dated 21 April 2021, Ms Laure Tourjansky is appointed member of the Commission of ASN, the French Nuclear Safety Authority, for the remaining term of the mandate of Ms Lydie Evrard, who is taking up other duties.

A graduate of the Ecole Normale Supérieure of Fontenay Saint-Cloud with a degree in the humanities and a doctorate in economics, Laure Tourjansky has the status of General Engineer of Bridges, Water and Forests.

She began her career in 1995 as project manager in the sectoral studies bureau (energy, transport, infrastructure) in the Forecasting Directorate of the Ministry of Economy and Finance. She then occupied the post of Rapporteur to the Competition Council from 1998 till 2000.

In 2000 she joined the Ministry in charge of Sustainable Development, first as head of the "resources and local services" bureau, in charge of waste economics among other things, then as head of the "infrastructures, transport and development" bureau at the Directorate of Economic Studies and Environmental Assessment.

In 2007 she was appointed head of the Waste Management Policy Department at the General Directorate of Risk Prevention (DGPR), a position she held until 2010.

She was then appointed Deputy Director of the Ile-de-France Regional and Interdepartmental Directorate of the Environment and Energy.

In 2014 she was appointed Deputy Director of the Maritime Fishing and Aquaculture Directorate of the Ministry in charge of Sustainable Development. In 2016 she was appointed head of the "Natural and Water-related Hazards" Department in the DGPR at the Ministry of Ecological Transition.

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Laure Tourjansky has been made Chevalier of the Order of Merit and Chevalier of the Legion of Honour.

### Radon, a naturally occurring radioactive gas, is a public health issue: ASN publishes the 2020-2024 national action plan to manage this risk

#### March 2021

ASN publishes the 2020-2024 radon risk national action plan (PAR 4). Building on the National Health-Environment Plan 4 (PNSE), "Му environment, my health" (2020-2024), this fourth edition is the fruit of between collaboration ASN, the Ministries for Health, Ecology, Construction and Labour, national experts, regional actors, radon measurement professionals and associations active in this area.

Radon is а naturally occurring radioactive gas, recognised as being carcinogenic, and present is everywhere on the surface of the Earth. In France, radon is the second cause of lung cancer (about 3,000 fatalities per year), behind smoking. Joint exposure to radon and tobacco substantially increases the risk of developing lung cancer.

In the outside air, radon is rapidly diluted and its average concentration usually remains very low. In enclosed spaces, it can build up and sometimes reach high concentrations, which then represent a health risk. Granite soils give off more radon than sedimentary soils, owing to the higher concentrations of uranium that they naturally contain. Municipalities in France are divided into 3 types of radon potential zones, based on geological criteria. Information and prevention are thus essential in managing this risk, so that exposure can be reduced or kept as low as reasonably achievable, given the current state of technical knowledge and economic and societal factors.

This underpinned the production of the PAR 4, taking account of all the exposure locations (home, workplace and facilities open to the public) and all those potentially exposed (population and workers).

Since 2005, successive action plans have helped improve our understanding of radon and prevention nationwide, while contributing to regulatory changes on this subject.



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The radon concentration in buildings can be easily measured with a detector that is installed for a period of two months in the home, areas open to the public the workplace. or concentration is moderate, simple measures are sufficient to reduce exposure. If the concentration is higher, a building professional must be called in. In any case, ventilation of the premises for at least 10 minutes per day is considered to be good practice, both in winter and in summer.

This plan follows through on the momentum developed under the PAR 3, for which ASN also publishes the results. These results show significant regulatory changes. Since 2016, radon has been considered to be an indoor air pollutant and management of this risk is part of a broader policy to improve indoor air quality. In addition, an obligation to inform buyers and tenants of the radon risk was introduced in those municipalities with a significant radon potential in 2018.

Although virtually all of the PAR 3 actions have been completed, the efforts made must be continued:

• the actors governed by the new regulatory provisions must be informed and assisted with their implementation;

• public awareness of the radon risk needs to be improved;

• improved understanding of the exposure of the population must be sought;

• evaluation of the effectiveness of preventive measures in new constructions and corrective measures in existing constructions must be continued.

A system of specific indicators will enable the effectiveness of the national strategy implemented under the national action plan to be evaluated as of 2021.

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Improving nuclear safety and radiation protection