French Nuclear Safety Authority
N#32 Sept. - Oct. 2020

Regulatory Updates

AUTORITÉ DE SÛRETÉ NUCLÉAIRE

Nuclear safety...

ASN issues its opinion on the management of low level, long-lived waste (LLW-LL)

October 2020

In response to a request from the Minister in charge of energy, as required by the French National Radioactive Materials and Waste Management Plan (PNGMDR), ASN issued its opinion on the studies regarding the management of low level, long-lived waste (LLW-LL), contributing to the orientations of the 5th edition of this Plan. LLW-LL waste implies a heterogeneous range in terms of its radiological and physico-chemical characteristics. It notably comprises graphite waste, radium-bearing waste, some of the bitumen waste in Marcoule and certain uranium conversion processing residues (RTCU) from Orano in Malvési. It requires specific management, because its half-life does not allow it to be disposed of in the existing industrial sites operated by the National Radioactive Waste Management Agency (Andra) in the Aube departement. Pending its disposal, LLW-LL waste packages are stored in facilities on producers sites.

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The PNGMDR 2016-2018 had notably required Andra to continue with geological investigations on a site currently being studied for the disposal of LLW-LL, to evaluate the inventory of LLW-LL waste liable to be disposed there, to produce a report presenting the technical and safety options for this disposal facility as well as an overall industrial scheme for the management of all LLW-LL waste.

The public debate held in 2019, in preparation for the 5th edition of the PNGMDR, confirmed the need to continue this work. Following this debate, the decision was taken to define a management strategy for LLW-LL taking account of their diversity, the safety issues, but also the environmental and local challenges implied by the various management solutions.

As part of this strategy, the possible role of the area of interest studied in the Vendeuvre-Soulaines municipality area will be clarified and a final management solution for the waste from the Orano facility in Malvési, notably legacy waste, will have to be defined.

Consistently with these orientations, and following analysis of the studies it received, ASN's opinion 2020-AV-0357 of 6 August 2020 specifies the areas for work that it recommends for LLW-LL management.

It more particularly urges continuation of the work undertaken under the PNGMDR 2016-2018, such as the consolidation of inventories of the various families of LLW-LL and the periodic reassessment of storage needs, notably in order to allow the decommissioning of nuclear facilities.

ASN considers that, on the basis of a multi-criteria analysis and no later than 31 December 2021, Andra shall submit the outlines of various technical and safety options for the shallow depth disposal facilities for LLW-LL, comparing the health and environmental effects of the various options envisaged.

All of the stakeholders concerned, in particular the representatives of the localities actually or liable to be involved, should be encouraged to play a more active role in defining LLW-LL management solutions.

A pluralistic working group could notably be set up to establish concrete management solution proposals based on Andra's work.

ASN also recommends deadlines for Andra's next design milestones (preliminary design study and then safety options file), for a shallow depth disposal project for LLW-LL in the Vendeuvre-Soulaines municipality area, which will be incorporated into this general strategy.

Finally, ASN considers RTCU must be better integrated in the work being done on the LLW-LL management scenarios. It recommends that studies be continued on an RTCU disposal facility, by involving representatives of the localities actually or liable to be concerned.

The aim is to provide the technical and safety options for this facility, at a date set by the next edition of the PNGMDR, with a level of maturity corresponding to the preliminary design study.

ASN authorises the reception and storage of nuclear fuel on Flamanville EPR reactor

October 2020

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The ASN authorized, by decision of 8 October 2020, the arrival of nuclear fuel at the Flamanville EPR reactor site. This fuel will be stored in the pool of the building intended for this purpose. This decision has been submitted as a draft for public consultation and the application file submitted by EDF has been made available to the public from 31 August to 21 September 2020.

The ASN carried out an inspection on the Flamanville site on 18 and 19 August 2020 to assess the operator's preparedness for the reception, handling and storage of the new fuel. The checks carried out during this inspection showed a satisfactory state of the installation and a satisfactory level of preparation by the licensee for the arrival of fuel on site.

The reception and storage of new fuel present risks of dispersion of radioactive substances in the event of a fuel assembly falling during handling. The ASN considers that the measures taken by EDF to prevent this accident scenario and limit its consequences are satisfactory. The ASN has also authorised the use of radioactive gases to carry out efficiency tests on certain filtration devices.

This authorisation is one of the stages prior to the commissioning of the Flamanville EPR reactor. The commissioning of the facility, i.e. the loading of fuel into the reactor vessel, remains subject to authorisation by ASN. It will also be subject to prior public consultation.

Secure financing of long-term nuclear costs: ASN issues its opinion on the licensees' reports

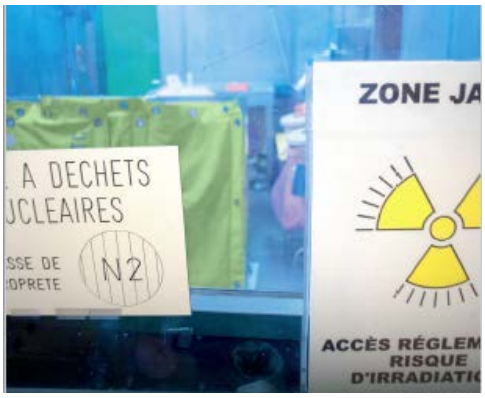
September 2020

At the request of the General Directorate for Energy and the Climate (DGEC) in 2019, ASN has issued its opinion on the fifth three-yearly reports submitted by the nuclear licensees with respect to the secure financing of long-term nuclear costs. This evaluation and provisioning system aims to ensure that the costs of decommissioning and of spent fuel and radioactive waste management are evaluated with sufficient prudence and are covered by dedicated assets so that the necessary financial resources will be available when the time comes.

ASN examined the technical hypotheses underpinning these cost evaluations.

The main ASN observations were, generally speaking, as follows:

- the scope of evaluation of the costs identified by the licensees remains incomplete. This scope in fact excludes operations with high financial stakes, such as the preparatory operations for decommissioning, the characterisation and management of soil and structural pollution, complete clean-out operations, the cost of works to maintain the facilities over their entire lifetime;
- the hypotheses adopted for the evaluation of the complete costs need to be reassessed, so that they are more realistic and prudent, with regard to the planning of decommissioning projects and programmes (inclusion of the risks of projects being delayed, inter-dependence between projects liable to amplify these delays) and the risks linked to the unavailability of storage, processing and disposal facilities;
- the cost forecasts at completion of the projects must be more detailed and better justified, in the light of the observed progress of the projects: delays, which are particularly frequent when it comes to decommissioning, increase these costs at completion accordingly;
- with regard to radioactive materials and waste management, the evaluation hypotheses proposed by the licensees are not prudent enough: they do not systematically include legacy waste disposal management, nor uncertainties surrounding the management of LLW-LL waste; they overestimate the prospects for the reuse of certain materials and underestimate the work needed with regard to bituminous waste; the availability of future waste disposal facilities has not yet been sufficiently taken into account.



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For each of the licensees, the main conclusions of the assessment conducted by ASN are as follows:

- **Andra:** Andra's fifth three-yearly report is concise but its content is nonetheless sufficient.
- **CEA:** ASN favourably considers the detailed report produced, plus its technical progress sheets project by project. However, the impossibility of comparing provisions transferred from one year to another hampers the transparency of the evaluation. Some hypotheses are insufficiently prudent.
- **Cyclife France:** the duration of decommissioning of the Centraco facility and the soil and structural clean-out costs are based on hypotheses that need to be consolidated and clarified, given ASN doctrine in this field.
- **EDF:** the financing of long-duration storage costs for the waste resulting from the reprocessing of spent fuel on the La Hague site is now secure, which constitutes real progress; moreover, the presentation in the three-yearly report of the main project risks is a step forwards in terms of transparency. Transparency efforts must be continued to clarify the design-basis hypotheses of the complete costs thus evaluated and the main risks.
- **Framatome:** the target level of clean-out and the scope of operations involved in preparation for decommissioning of the facilities included in the evaluation need to be clarified.
- **Institut Laue Langevin:** the envisaged duration for the decommissioning of the high flux reactor (RHF) must be reassessed.
- **Ionisos:** the evaluation of the provisions for the decommissioning of this facility is insufficient. The three-yearly report submitted by Ionisos contains many gaps and its content does not comply with the regulation obligations in terms of transparency and exhaustiveness.
- **Orano:** the potential consequences of soil and structural pollution on the La Hague and Tricastin sites must be evaluated. The potential consequences, in terms of safety and financing, of the legacy waste retrieval and conditioning operations and the decommissioning operations on the La Hague site require an in-depth evaluation of the current rate of progress of the projects, in order to substantiate their costs at completion and the sufficiently prudent nature of the amounts of the costs for which provisions have been set aside accordingly. Clarification regarding the Ecrin basic nuclear installation (BNI n° 175) is required.
- **Synergy Health:** some hypotheses need more detailed analysis and greater account needs to be taken of the foreseeable contingencies regarding the decommissioning of the two Gammaster and Gammatec facilities.

ASN has no particular comments concerning the reports submitted by the other basic nuclear installation licensees (Ganil, Cis bio international).

France Report under the European Euratom Directive on the Safety of nuclear installations 2014/87/Euratom

September 2020

On July 22, 2020, France transmitted, to the European Commission, its report pursuant to Council Directive 2014/87/Euratom of July 8, 2014 amending Directive 2009/71/Euratom of June 25, 2009 establishing a Community framework for the safety of nuclear installations.

This report presents the measures taken at the national level to implement the nuclear safety provisions of this directive, in particular following the accident that occurred in March 2011 at the Fukushima-Daiichi nuclear power plant in Japan. It is an update of the first report drawn up in 2014 by France under Directive 2009/71/Euratom of June 25, 2009.

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