

## **Public consultation summary**

From 10 July to 12 September 2017 the French nuclear safety regulator (ASN) consulted the public by means of its website, in order to collect its observations on its draft opinion concerning the anomaly in the composition of the steel used in the manufacture of the EPR reactor pressure vessel closure head and bottom head in the Flamanville NPP.

During the course of this consultation, more than 13,000 comments were submitted by private individuals.

The National Association of local information committees and commissions (ANCCLI), the *Association pour le contrôle de la radioactivité dans l'Ouest* (ACRO) and the Flamanville local information committee also posted their observations.

EDF and Areva NP submitted comments, along with a confirmation of their respective commitments. They in particular expressed the wish that ASN would only set a limit on the lifetime of the current closure head if it can be demonstrated that inspections on this component are not feasible.

The comments fall into various categories, with the first three representing the vast majority:

- comments calling into question France's energy policy (requesting closure of the nuclear sector);
- comments asking for shutdown of the EPR reactor and a broader debate on the question;
- comments rejecting commissioning of the Flamanville EPR reactor pressure vessel with its existing components (a large number of comments were identical). The following considerations should in particular be mentioned:
  - the need for application of the precautionary principle;
  - rejection of the position regarding the use of the closure head until the end of 2024;
  - the fact that the reactor pressure vessel closure head will become contaminated waste after seven years of operation;
  - questioning of ASN's ability to ensure that the end of 2024 deadline is respected;
  - no commissioning of the EPR without a new closure head;
  - the ASN draft opinion is considered to be a means of circumventing the regulations;
  - incriminating the article 9 of the order of 30 December 2015 relative to nuclear pressure equipment;
  - the ASN draft opinion is considered to have been issued under pressure from industry and concentrates on economic issues;
  - doubts expressed as to the reliability of the data presented by EDF and Areva NP;

- comments calling into question the point of the consultation about this draft opinion, either owing to the technical nature of the problem, or owing to mistrust with regard to ASN's actual purpose (suspicion of wishing to shift the burden of responsibility to the public);
- comments questioning the independence and the competence of the personnel who analysed the file submitted by Areva NP;
- comments questioning the formulation of the following sentence: "Whereas the presence of a positive carbon macrosegregation zone can reduce the toughness of the steel, in other words its ability to withstand crack propagation and can compromise its fast fracture strength" which does not reflect the fact that the effect of the segregation phenomenon on the mechanical properties of steel has been proven;
- comments supporting the minority opinion of the Advisory Committee for nuclear pressure equipment;
- comments supporting the ASN draft opinion;
- comments supporting the EPR project;
- questions concerning technical aspects of the Areva NP file;
- requests for the provision of documents in the file (EDF and Areva NP documents referenced in the ASN and IRSN examination documents, letters exchanged between ASN, the manufacturer and the licensee);
- requests for information about Chinese EPR reactor pressure vessels;
- requests for a second opinion;
- requests for proof that ASN has actually taken note of the comment.

ASN supplemented and clarified its opinion in the light of the various comments from the public, more particularly with regard to the demonstration approach, the applicable regulatory framework and the reliability of the data from Areva NP and EDF.