

Report of the Public Involvement Process associated with the Generic Design Assessment of New Nuclear Reactor Designs

Description and outcome of the public involvement process carried out on behalf of the Health and Safety Executive and the Environment Agency during the initial assessment of the:

- AREVA NP SAS and Electricité de France SA UK EPR Nuclear Reactor
- Atomic Energy of Canada Limited ACR-1000 Nuclear Reactor
- GE-Hitachi Nuclear Energy International LLC ESBWR Nuclear Reactor
- Westinghouse Electric Company LLC AP1000 Nuclear Reactor

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Summary

This public report sets out the conclusions of the Public Involvement Process carried out on behalf of the nuclear regulators (the Health and Safety Executive (HSE) and the Environment Agency) during the initial assessment of the Generic Design Assessment (GDA) process for new nuclear reactor designs. It explains how the Public Involvement Process arose from the desire for GDA to be open and transparent, describes the key elements of Public Involvement Process, and outlines the results of the process during the initial assessment stage of GDA.

Definitions

The following definitions apply to terms used in this report:

Commercially Confidential Information: Any and all information which is a trade secret or which, if disclosed, would adversely affect the confidentiality of commercial or industrial information where such confidentiality is provided by law to protect a legitimate economic interest.

Generic Design Assessment (GDA): The process under which the nuclear regulators carry out an assessment of the safety, security and environmental aspects of a new nuclear power station design, in advance of any formal application to build such a station at a particular site.

Initial Assessment: The fundamental safety overview (STEP 2) carried out by HSE, and the preliminary assessment carried out by the Environment Agency.

Joint Programme Office: The office set up by the nuclear regulators to jointly administer the Generic Design Process on their behalf.

Nuclear regulators: HSE (comprising both the Nuclear Installations Inspectorate and the Office for Civil Nuclear Security), and the Environment Agency.

Public Involvement Process: The process adopted by the nuclear regulators which allowed members of the public to view and comment on the public version of the Safety, Security and Environment Report (SSER) provided by the Requesting Parties.

Requesting Party: The organisation(s) seeking Generic Design Assessment of a reactor design and who have signed written Agreements with the Regulators.

Safety, Security and Environmental Report (SSER): One or more documents or submissions which collectively provide the information required for the Generic Design Assessment process as described in the Regulators' Guidance to Requesting Parties.

Sensitive Nuclear Information: Information relating to premises deemed (by OCNS) to need to be protected in the interests of national security (section 77(7), Anti-Terrorism, Crime and Security Act 2001).

Background

In their expert report made as their contributions to the Government's Energy review in 2006, the Health and Safety Executive and the Environment Agency set out proposals for a system for the 'pre-licensing' of

nuclear power station designs (this later became Generic Design Assessment or GDA). These included a proposal that the 'applicant' places information about its proposals and safety case into the public domain, so that any interested parties might comment to the nuclear regulators about any issues that concern them about the design. This commitment, which led to the Public Involvement Process incorporated into the initial assessment of GDA, reflected both Government and the regulators' general policies towards openness and transparency in the way they carry out their work. More specifically, by opening up the assessment process, HSE and the Environment Agency wished to demonstrate the independence and expertise of the nuclear regulators, and to reassure the public that the safety, security and environmental implications of the designs were being properly considered, as well as ensuring that the decisions made by regulators are informed by a wide range of other opinions – although the regulators retain the sole responsibility for decision-making.

The Public Involvement Process

Overview

Under the Public Involvement Process, agreed between the nuclear regulators and the Requesting Parties, the public was given access to the SSER prepared for the design by the Requesting Parties, except for commercially confidential information and sensitive nuclear information. An opportunity was then given for the public to comment to the relevant Requesting Party, who was asked to respond.

The issues raised, and the Requesting Parties responses to these issues, were given due consideration by the regulators, who had given an undertaking to publish their views on the main issues raised (and responded to) during the Public Involvement Process at key stages of the GDA process.

Detail

On 10 September 2007, shortly after the launch of the initial assessment, the four Requesting Parties involved in GDA published an SSER for their designs on their own websites (using a 'UK Generic Assessment' homepage). In view of the complex and technical nature of much of the information included in an SSER, the Requesting Parties were also asked to provide a summary of the design information for non-experts, and a 'road map' to facilitate the search for information.

The nuclear regulators also set up joint nuclear new build web pages for the GDA process, which contained links to the websites of each Requesting Party. Each SSER report was also available (via the Joint Programme Office) in CD format, for members of the public without ready access to the Internet. A printed version of the summary information was also provided to allow comments to be made by post.

To publicise the commencement of the Public Involvement Process, the Requesting Parties had been asked to place public announcements in a range of national newspapers. The regulators also promoted the launch of the Public Involvement Process by:

- Announcements made on the home pages of both the HSE and Environment Agency websites.
- Issuing an e-bulletin for GDA (itself publicised by an electronic mailshot to a wide range of potential interested parties).
- Publishing a leaflet, 'Designs for potential nuclear power stations – public involvement' (MISC790), which was distributed to all public libraries in Great Britain.

- Writing to MPs, Members of the Scottish Parliament, and Welsh Assembly Members.
- Briefing the regulators' front line staff, including site inspectors.

As well as viewing the design information provided by each Requesting Party on its web site, the public was also able to make comments online. Any comments made were then sent directly to the Joint Programme Office, where they were logged and then acknowledged by e-mail (a printed form was also available to allow comments to be made by post). Comments relevant to a particular design were then forwarded to the appropriate Requesting Party, which was asked to respond to the person making the comment within 30 days. Comments on other issues, such as the Public Involvement Process itself, were dealt with directly by the JPO, which responded as appropriate.

The regulators reviewed all the comments made (and the responses received) during the initial assessment of the four designs.

Originally, a 3-month 'window' from September to the beginning of December had been planned for the Public Involvement Process during the initial assessment. However, the regulators later determined that the process should be kept running throughout the entire GDA period (likely to be around 3 years). Therefore the facility to view design information and make comments will be kept open after the end of the initial assessment.

Outcome

Web activity

In the 6 months since the new build web pages were launched, approximately 80,000 'hits' were received in total (this included the joint web pages provided by the regulators as well as those provided by the Requesting Parties). Each Requesting Party was receiving between 3,000-6,000 web 'hits' per month by September 2007 when the Public Involvement process was launched, with the joint web pages receiving around 5,000 hits per month. Accurate total figures are not available for this period, as only three of the four Requesting Parties kept web statistics. There has been a gradual reduction in interest since then, with a small peak of interest when the Government announced the results of its consultation on nuclear power on 10 January 2008.

The 'new-build' e-bulletin network set up to allow people to sign up for information on the GDA process had over 800 members at the end of the initial assessment period.

Comments

Although the web page 'hits' described above indicated a good deal of interest in the design material, and the Joint Programme Office had received a significant number of requests for CDs of the design information, the number of comments received was much lower than anticipated. The possible reasons for this low rate will be considered during the review of the Public Involvement Process which is shortly to be carried out by the regulators.

In total, 29 comments were received. Of these, 17 were related to the design material provided by the Requesting Parties. Each of these has been forwarded to the appropriate Requesting Party and responded to by them. All these comments, and the responses from Requesting Parties, have been reviewed by the nuclear regulators, and the main issues raised have been summarised in the Public Reports published by HSE and/or the Environment Agency.

12 of the comments received were not directly associated with any of the designs under the GDA process. These are listed in the table below which sets out the regulator's response to each issue raised.

| Issues raised | Regulators response |
|--|--|
| Principle of nuclear power (i.e. building new nuclear power stations not justified) | Referred to DBERR – part of their consultation exercise |
| Pebble-bed reactor (information required on reactor type not being assessed by GDA) | Referred to appropriate source of information |
| Energy yield of uranium | Referred to appropriate source of information |
| Comparison of safety risk between reactors subject to GDA | HSE will assess each design (and whether the risks of each have been reduced as low as reasonably practicable) on a case-by-case basis |
| Scope of GDA - is this a 'cradle to grave' assessment? | GDA will cover, so far that this can be done at a generic (non site-specific) level, the design, construction, operation, fuelling, de-fuelling and decommissioning of the plant |
| Scope of GDA - are impacts of uranium mining covered? | GDA is focussed on nuclear power stations |
| Scope of GDA - is the possible use of mixed oxide fuels in reactors covered? | If the RP's submissions propose use of mixed oxide fuels, the safety, security and environmental implications will be assessed by the regulators |
| Scope of GDA – will aircraft impact be taken into consideration? | The safety and security implications associated with the impact of high-speed aircraft on a reactor will be considered in GDA |
| Design information was not presented in a user-friendly manner on vendor's web sites | This issue has been discussed with the vendors and will be examined in more depth during a review of the public involvement process – due to be carried out at the end of Step 2 |
| Design information gives inadequately detailed data on plant performance (examples given included on-site storage of waste and the level of contaminants in fuel) | Design information considered adequate for Step 2 (an overview of the acceptability of the designs within the UK regulatory regime). More detailed information on such issues will be available during Steps 3 and 4 |
| Security being used by vendors to exclude information essential to any judgment of whether assertions made in the safety, security and environment report on aircraft impact are valid | Security sensitive information will not be excluded from the information submitted to and considered by the regulators |
| There have been difficulties with the access to some of the vendor's web sites (e.g. system runtime errors) and ability to submit comments on-line | System issue were raised with the vendors as they were reported. Those experiencing difficulties were asked to retry. |

Review of the Public Involvement Process

A review of the Public Involvement Process will be carried out at the end of the initial assessment. This will focus on the effectiveness of the steps taken to raise the awareness of the public towards the GDA process, the design information provided by the Requesting Parties, and the arrangements made to allow the public to view that information. It will also consider the administrative procedures adopted by the Joint Programme Office when administering the Public Involvement Process.

The review will take into account the recommendations made by the independent process Review Board in its report to the Chief Inspector of Nuclear Installations.

Next Steps

The nuclear regulators remain committed to ensuring that the GDA process is carried out openly and transparently, and with opportunities for public input. It is our intention to re-launch the Public Involvement Process soon after the start of the next stage in the GDA process, when any changes identified in the review mentioned above will be put into effect.