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Our Ref: 2012/448621
Unique No: EPR70475N

Your Ref: N/A
Unique No: EPR01513R

13 December 2012

New nuclear power stations: Generic Design Assessment

Design Acceptance Confirmation for the UK EPR™ Reactor

The Office for Nuclear Regulation (ONR) – an agency of the Health and Safety Executive (HSE) – has undertaken a Generic Design Assessment (GDA) of the Electricité de France SA and AREVA NP SAS (EDF and AREVA) UK EPR™ nuclear reactor during the period July 2007 to December 2012 in accordance with the process identified in the documents *New nuclear power stations: Generic Design Assessment: Guidance to Requesting Parties*¹, *Office for Civil Nuclear Security Guidance document for Generic Design Assessment activities*², and *Guidance on the Management of GDA Outcomes*.³

On 14 December 2011 ONR(HSE) issued an Interim Design Acceptance Confirmation (iDAC) for the UK EPR™ nuclear reactor. This identified 31 GDA Issues that needed to be resolved before ONR(HSE) could consider granting a final Design Acceptance Confirmation (DAC). Since then, EDF and AREVA have provided additional safety submissions and proposed additional modifications to address these Issues.

ONR(HSE) has assessed this information and has written to confirm that it provides adequate responses and that all the GDA Issues have been closed. The conclusions of our assessment are provided in the report entitled *New nuclear reactors: Generic Design Assessment. Electricité de France SA and AREVA NP SAS UK EPR™ nuclear reactor. Summary of the GDA Issue close-out assessment of the Electricité de France SA and AREVA NP SAS UK EPR™ nuclear reactor*, dated 13 December which has been published on the ONR website www.hse.gov.uk/newreactors.

On the basis that all the GDA Issues identified in the iDAC have now been resolved and closed, ONR(HSE) is content to issue a DAC for the UK EPR™ nuclear reactor.

In *Office for Civil Nuclear Security Guidance document for Generic Design Assessment activities*, Office for Civil Nuclear Security (CNS), as part of HSE, stated it would provide, following a detailed review of the proposed security measures and subject to the development of an acceptable generic conceptual site security plan, a letter of comfort to the Requesting Parties. The assessment of the security aspects of the safety case for the UK EPR™ nuclear reactor have been subsumed within the main ONR(HSE) GDA process and ONR(HSE) has therefore decided not to provide a separate letter of comfort in relation to the security aspects of the generic design. The provision of a DAC by ONR(HSE) means that it is fully content with both the security and safety aspects of the generic design.

The DAC (ONR-GDA-DAC-12-001) is attached to this letter. It remains valid for a period of ten years from the date of issue. The status of the DAC is as set out in *Guidance on the Management of GDA Outcomes*.

The DAC does not guarantee that ONR(HSE) will grant permission for the construction of a power station based on the UK EPR™ nuclear reactor design at a particular site in Great Britain. Any organisation wishing to build and operate such a nuclear installation in Great Britain must obtain from ONR(HSE) a site-specific licence under the Nuclear Installations Act 1965 and any necessary consents for construction of that installation in accordance with the conditions attached to that licence. In addition, that organisation will need to comply with the requirements of the Nuclear Industries Securities Regulations 2003 as they apply to the relevant site. However, ONR(HSE) will, during the period for which it remains valid, take the DAC into consideration in assessing the adequacy of any licensee's case for requesting consent for the start of nuclear island safety related construction for a UK EPR™ nuclear reactor at a site licensed in Great Britain.

Signed

Dated



Mr Colin Patchett

*Acting Chief Inspector of Nuclear Installations
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References

- 1 *Nuclear power station Generic Design Assessment – Guidance to Requesting Parties* Version 3 HSE August 2008 www.hse.gov.uk/newreactors/ngn03.pdf
- 2 *Guidance document for Generic Design Assessment activities* (Version 2) Office for Civil Nuclear Security January 2007 www.hse.gov.uk/nuclear/ocns/ocnsdesign.pdf
- 3 *New nuclear power stations. Generic Design Assessment. Guidance on the management of GDA outcomes* Version 1 HSE June 2010 www.hse.gov.uk/newreactors/reports/management-gda-outcomes.pdf

GENERIC DESIGN ASSESSMENT OF EDF AND AREVA UK EPR™ NUCLEAR REACTOR
DESIGN ACCEPTANCE CONFIRMATION
FOR THE EDF AND AREVA UK EPR™ NUCLEAR REACTOR

The Office for Nuclear Regulation (ONR), an agency of the Health and Safety Executive (HSE), in accordance with the document *Guidance on the Management of GDA Outcomes Version 1, 23 June 2010*, hereby gives Electricité de France SA and AREVA NP SAS (EDF and AREVA) a Design Acceptance Confirmation (DAC) for the UK EPR™ nuclear reactor.

This DAC:

(a) is given following the assessment of the material included in the GDA Submissions described in the Annex; and

(b) supersedes the Interim Design Acceptance Confirmation given by ONR(HSE) for the UK EPR™ nuclear reactor on 14 December 2011.

This DAC is valid for a period of ten years beginning on the date on which it is issued.

Signed

Date of Issue



Mr Colin Patchett

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**Annex to the Design Acceptance Confirmation
for the UK EPR™ nuclear reactor
GDA Submissions**

For the purposes of the DAC, the generic design of the UK EPR™ reactor and the generic safety and security provisions are described in the following submissions:

- 1 *Reference Design Configuration*. UKEPR-I-002 Revision 15, EDF and AREVA, December 2012 (other than the aspects identified in this document by EDF and AREVA, and agreed with ONR(HSE) as being outside the scope of GDA).
- 2 *UK EPR GDA Consolidated Pre-construction Safety Report*. EDF and AREVA, December 2012. Detailed in EDF and AREVA letter UN REG EPR01470N of 30 November 2012.
- 3 The documents identified in the Submission Master List. *UK EPR GDA Submission Master List*, UKEPR-0018-001 Issue 03, EDF and AREVA, 06 December 2012.