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Dear Mr Wilkinson

#### **LARGE & ASSOCIATES'S REPORT ON GDA**

Thank you for your note alerting us to the publication of Large & Associates' report on GDA. Rather than commenting on the specific detail, I have provided some explanation and commentary on the main themes in Mr Large's report.

I think it is important to stress that completing GDA does not mark the end of our work on UK EPR™. It was always likely that when a DAC was provided, some nuclear safety issues would remain and would require further work. What GDA does is get our assessment off to a good start, but it is not the end of it. The objective of undertaking GDA at an early stage was to give regulators more influence over the design, while it remained 'on paper'. In fact, as a result of our early influence, 82 design changes were proposed by EDF and AREVA during GDA and we believe that these design improvements significantly strengthen the safety case for the UK EPR™.

Our guidance makes the above points clear and I copy some extracts for illustration in an annex.

The scope of assessment that we planned to undertake for GDA was set out in our guidance. When this planned assessment was finished for the UK EPR™, at the end of Step 4, we identified that we were content with the generic design except for 31 outstanding Issues. The GDA closure phase then focussed on these Issues and we only closed these once they were addressed appropriately. When all 31 were closed we concluded that a DAC could be provided.

The Large & Associates' report states that '*GDA Issues have in fact not been settled but deferred via Assessment Findings for later resolution*'. We have made clear the reasons for closure of each GDA Issue in our close-out assessment reports, and we also provide a description of the information that EDF and AREVA supplied to address them.

A further comment in the report is that the assessments reports were written '*primarily for public dissemination*'. This was not the case; they are detailed technical reports written for our internal records, but in the spirit of openness we publish them. These reports are important records of our judgements and decision making and as such they sometimes unavoidably contain information that has security or commercial implications and which is redacted before publication. To help counter this, we also provided comprehensive summary reports that are written primarily for the public, at every step of GDA (in addition to the quarterly progress reports).

The governance of the GDA Issue closure phase was thorough and is described in our closure reports. It included review by an internal but independent assurance team, the Assessment Review Group, the Civil Nuclear Reactor Programme Board, and a 'challenge and moderation' panel of senior ONR inspectors. This ensured we only closed GDA Issues when we were content that the responses were adequate. However, adequate does not mean that every detail of the design was complete. Our assessment of GDA Issues has focussed on safety principles and design fundamentals with a view to securing confidence that an acceptable design can be achieved at the site specific stage. Our guidance made it clear that neither the design nor our assessment of it would be complete in GDA.

As noted in Mr Large's report, we use Assessment Findings for identifying matters in GDA that are important to safety, but not considered critical to the decision to start nuclear island safety-related construction. These are matters that can best be further developed at the site specific phase and often relate to site specific design detail, or commissioning, or the fact that the design is not yet fully detailed.

After GDA, the Assessment Findings will be subject to appropriate control as part of normal regulatory oversight, and it will be the responsibility of the future licensee to ensure they are addressed during the detailed design, procurement, construction, or commissioning phase of the new build project.

As also noted in the report, we believe that Assessment Findings are mostly matters that we would anyway have raised during our site specific assessments. By identifying them during the GDA process we are maximising the time available for future licensees and operators of the UK EPR™ to address them. We therefore believe that early identification of Assessment Findings in this way thus represents one of the key benefits of GDA.

The report raises the question of whether Assessment Findings were sufficiently well known for the GDA Issue close-out letters to be issued, and a DAC decision taken. As many reports were not published until March 2013, Mr Large argues that this information is not transparent. I can confirm that, at the time of closure of the GDA Issues, all the EDF and Areva reports had been assessed and the scope of the Assessment Findings was known within ONR.

We agree with you that the safety and security of communities potentially playing host to these nuclear plants is paramount. Rest assured, we will not permit the start of construction, or the operation of any reactor until we are satisfied that appropriate safety cases have been provided, and this will include ensuring that Assessment Findings are addressed.

As well as publishing all the GDA reports, ONR has published all the reports in relation to granting a nuclear site licence for Hinkley Point C. These are available to read on our website:  
<http://www.hse.gov.uk/nuclear/hinkley-point-c/assessment-reports.htm>

It is our intention to continue this policy of openness as this project progresses.

The level of openness we aimed for in the GDA process was new to ONR and we accept that there is room for improvement. We will strive to do this as part of our on-going commitment to continuous improvement.

Yours sincerely



 **Mr D Watson**  
**HM Superintending Inspector**



## Extracts from ONR documents

### **New nuclear power stations. Generic Design Assessment. Guidance to Requesting Parties. Version 3. HSE. August 2008**

*62 If HSE's assessment of the design is generally positive but some nuclear safety issues remain, or where there are other exclusions deemed necessary by HSE, these will be identified at the time the Design Acceptance Confirmation is issued.*

### **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](http://www.hse.gov.uk/newreactors/reports/management-gda-outcomes.pdf)

*full design ..... will still not be available when GDA is complete. This was foreseen at the outset of GDA: the important point is that the safety case that is assessed in GDA envelopes the key safety parameters that then need to be adopted during the forthcoming design, procurement, construction and commissioning phases of the project. Regulators will then ensure compliance with the GDA safety case as the project progresses.*

*Whilst regulators require a certain minimum level of detail to complete GDA, they recognise that full engineering details of the design will not be available at the GDA stage*

*GDA was designed to assess the generic safety case for future reactor designs, and not the adequacy of the actual final design. It was also not intended to provide a complete assessment of the final reactor design, as there will be other issues, operator specific or site specific, that we would expect to be considered during the environmental permitting and site licensing stages. In some instances the safety case can inevitably only be validated by procurement or later testing or commissioning. This validation process is normal regulatory business and will be subject to appropriate regulatory controls.*

### **Project Assessment Report: Summary report of GDA Issue close-out and Design Acceptance Confirmation Decision for UK EPR™ , ONR-GDA-PAR-12-062 , Revision 0, 10 Dec 2012**

<http://www.hse.gov.uk/newreactors/reports/step-four/close-out/par-close-out-dac.pdf>

*ONR's assessment will therefore continue during the site specific phase, where validation of aspects of the safety case can inevitably only be completed when the final detailed design of equipment is developed by a manufacturer / supplier, or when the facility is being constructed and is in the process of being tested.*

*In total, 82 design changes have been proposed by EDF and AREVA and included within GDA and these are now incorporated within the GDA Reference Design. ONR's view is that these design improvements significantly strengthen the safety case for the UK EPR™.*

*In view of the additional safety improvements that EDF and AREVA have provided, we are now content that the current UK EPR™ generic reactor design and safety case has demonstrated that risks to workers and the public are ALARP and that the UK EPR™ is suitable for construction in the UK, subject to site specific assessment and licensing.*

*Findings identified during the GDA assessment which are important to safety, but not considered critical to the decision to start nuclear island safety related construction, are known as assessment findings. These are matters that can best be further developed at the site specific phase. These are identified in our Step 4 and GDA Issue close-out assessment reports. After GDA, the assessment findings will be subject to appropriate control as part of normal regulatory oversight, and it will be the responsibility of the future licensee to ensure they are addressed during the detailed design, procurement, construction, or commissioning phase of the new build project.*

*The [GDA Issue closure] process required written confirmation that for an individual GDA Issue:*

- EDF and AREVA have submitted all the information agreed to be provided;*
- All responses to Technical Queries had been received;*
- All relevant modifications had been identified; and*
- The information provided was judged to provide an adequate response to the GDA Issue.*