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Site Inspection Report No: AWE 2007/037

HEALTH AND SAFETY EXECUTIVE  
HM NUCLEAR INSTALLATIONS INSPECTORATE

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1.	VISITING OFFICERS	Name(s)				
		[REDACTED]	all			
		[REDACTED]	8.1.1			
		[REDACTED]	8.1.2, 8.3.1, 8.3.3, 8.3.4			
		[REDACTED]	8.1.1			
		[REDACTED]	8.3.2, 8.4.2			
		[REDACTED]	8.4.2			
2.	DATE(S) OF VISIT	15 <sup>th</sup> – 17 <sup>th</sup> May 2007				
3.	SITE AND LOCATION OF VISIT	AWE, Burghfield				
4.	PURPOSE OF VISIT -					
SIR Paragraph	Inspection details (including operating unit / building)	Plan Name.	Div 3 IIS Code	LC / Topic	Outcome Rating	
8.1	Planned Inspections					
8.1.1		AWE	A1	15	3	
		AWE	A1	22	3	
8.1.2		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	
8.2	Reactive inspections None carried out					
8.3	Licensees Project Related work					
8.3.1	[REDACTED]					
8.3.2	Meeting with Burghfield PRS Assurance					
8.3.3	Meeting on Burghfield Licence Instruments					
8.3.4	Meeting on [REDACTED]					
8.3.5	[REDACTED]					
8.4	[REDACTED]					
8.4.1	[REDACTED]					
8.4.2	[REDACTED]					
9.0	<u>Recommendations and actions</u>					

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5. PRINCIPAL STAFF SEEN:

Topic	Names of staff seen for each topic	Position
8.1.1	[REDACTED]	AWE Burghfield [REDACTED]
8.1.2	[REDACTED]	AWE Corporate [REDACTED]
8.3.1	[REDACTED]	AWE Corporate Assurance
8.3.2	[REDACTED]	AWE Burghfield Assurance
8.3.3	[REDACTED]	AWE Burghfield [REDACTED]
8.3.4	[REDACTED]	[REDACTED] Project Manager
8.3.5	[REDACTED]	Project Mensa Safety Case author

6. POINTS OF INTEREST TO OTHER SITES/SITE INSPECTORS

None.

7. SUMMARY

Routine compliance inspection was carried out against licence conditions 15 and 22 at AWE Burghfield and [REDACTED] Assessment of LCs 15 and 22 was by inspection of the PRS shortfalls. Although it was difficult to follow the trail from the identification of a shortfall through to its remediation and final completion, the evidence presented indicated that AWE(B) had sufficient arrangements in place to carry out this process.

[REDACTED]

[REDACTED]

8. REPORT

8.1 Planned Inspection

8.1.1 Licence Conditions 15 and 22

I took this opportunity to assess how AWE deal with PRS shortfalls, from identification, through the ALARP process to implementation and remediation in the facility. Hence this inspection considered the implementation of adequate arrangements for the periodic and systematic review and reassessment of safety

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cases (LC15) and the adequacy of arrangements to control any modification carried out on any part of the existing plant that may affect safety (LC22).

the led the discussions from AWE's side. AWE(B) stated that 21 improvements have actually gone through the complete process with a further 50 well-advanced and nearly complete. At random, we chose the Category 1 shortfall for loss of HVAC system in building which AWE had declared had been completed. This shortfall considers the case of an incident in one of the GGs and the requirements of the HVAC system in the shelter buildings to reduce the dose. We focused on two Safety Functional Requirements (SFRs) for this shortfall; one for the air intake and a second for the HVAC filters. We quickly found the process of addressing these SFRs somewhat confusing and tortuous. The PRS Review of Shortfalls was a significant document which appeared to catalogue all of the shortfalls and summarized the ALARP discussions that had been undertaken. However, in this instance it appeared that there was a movement away from addressing the original SFRs for the air intake and the HVAC filters, and instead moving towards the option of 'not making a claim on the HVAC system'. This argument, however, places reliance on the containment report (for the GGs). Hence it was our view that this shortfall had not been closed out by an engineering fix, for example, but had in fact shifted to further study that seemed to oppose the requirements of the original shortfall.

Another shortfall, which we were assured had been closed out, was the siting of a Zone Control Point (ZCP). The PRS concluded that it should be located away from the potential hazard and hence was not to modern standards. An item of work that came out of the ALARP reviews of this shortfall was to enhance the access and egress for Emergency Services to the back-up ZCP in . I inspected the 804 Change Control documentation that had been raised for this modification, which did appear to follow the appropriate facility procedures. However, the implemented change will need to be justified in the revised safety case before this PRS shortfall can be considered as adequately closed-out.

I raised concerns at this point that both of these shortfalls that AWE(B) believed had been adequately closed out still required further work prior to satisfactory completion. In order to allay these concerns, AWE presented some modifications that had been undertaken for the . The interim risk assessment had identified fitting of an and a . A Facility Modification Request Assessment (FMRA) was produced for this work, as required by AWE's procedures. This appeared to address the main implications for the modification, such as the safety case aspects.

Although the work was carried out, this did not seem to be the end of the story from the point of view of closing the PRS shortfall. A further independent review and fault analysis report were to be produced to feed back into the revised safety case and would essentially close out the modifications to the . Hence, even this apparent straightforward modification could not yet be accepted as being satisfactorily completed.

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Nevertheless, although it was difficult to follow the trail from the identification of a shortfall through to its remediation and final completion, the evidence presented indicated that AWE(B) had sufficient arrangements in place to carry out this process. [REDACTED] believed that as more and more shortfalls were being addressed, this process would be easier to follow. At this stage, I believe that the following rating is appropriate for both LC 15 and LC22, but I will monitor the situation over the coming months to ensure that the rating remains appropriate.

3

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

### 8.3.2 Meeting with PRS Assurance

I was accompanied by [REDACTED] for a meeting held with [REDACTED] who was the AWE(B) assurance contact for the PRS project. From previous discussions, it was apparent that he had a key role in that he provided the safety case link between the specification for a process or item and the implementation of the process or the engineered fix via the 804 Change Control.

For Category A and B submissions, [REDACTED] advised us that his team would get heavily involved in the staged safety case submission. For Category C modifications, his team would produce the Facility Management Risk Assessment (FMRA). This will in most cases refer back to the extant safety case and consider how the remedial work affects the safety case. [REDACTED] also advise us hat his team will attend the ALARP reviews and check the validity of Safety Functional Requirements. With regard to the latter, he added that his team have re-written some SFRs where they have been aspirational and fed these back into the safety case.

The discussion moved onto more specific Human Factors issues. These will be progressed by [REDACTED] and will be addressed in [REDACTED] Contact Report.

I considered that [REDACTED] had a good understanding of his role in ensuring that all of the safety case implications of the shortfalls identified in the PRS have been considered and are addressed prior to remediation of the shortfall via the 804 process.

### 8.3.3 Meeting on Burghfield Licence Instruments

A meeting was called by [REDACTED] to investigate the possibility that the Licence Instrument currently scheduled for [REDACTED] is brought forward to [REDACTED]. This was due to the changing availability of some buildings for operational requirements and others for remedial work. If the LI was brought forward [REDACTED] explained that a bigger window would be available in other buildings, in which further PRS shortfalls could be addressed.

We indicated that this may be acceptable, although we would need to agree what fixes would be completed and to what standard. We added that we would expect some significant progress to be made prior to issue of the next LI. It was explained that the [REDACTED] would still be required in [REDACTED] and [REDACTED] hence LIs would be required. We agreed to meet with AWE again so that they could provide us with exact details of which shortfalls would be completed in the new window of availability. (Post Visit Note: Myself and [REDACTED] met with AWE on 22 May 2007 to discuss this further. We were presented with a list of shortfalls that would be completed. We are considering these at present with a view to holding a further meeting with AWE during the June inspection week to give our decision).

[REDACTED]

[REDACTED]

8.3.4 Meeting on [REDACTED]

I was joined by [REDACTED] for a meeting called by AWE(B) because they were unsure of NII's expectations regarding reliability of the replacement [REDACTED] in [REDACTED]. [REDACTED] explained that the main driver for replacement of the existing [REDACTED] is the risk driven by limitations of the building structure to support the [REDACTED] of the existing frame. The solution was to significantly reduce the [REDACTED] by replacing the existing by a much lower [REDACTED] and to strengthen the building. [REDACTED] and myself were content that this was an appropriate way forward. [REDACTED] said that reliability of the [REDACTED] was always a secondary issue. However, he added that some recent discussions with assessors appeared to indicate that NII considered that the main driver for the [REDACTED] replacement was reliability. We added that a replacement [REDACTED] with similar reliability to the old [REDACTED] but with significantly less [REDACTED] would appear to be a much more favourable position than existed at present. However, we reminded AWE of their ALARP obligations and added that if further work could be done to the replacement [REDACTED] to improve its reliability further, then it should be considered to ensure that the risks are ALARP at all times.



[REDACTED]

Investment Projects:

[REDACTED] gave an overview of progress on the PRS shortfalls and progress on remediation of the [REDACTED]. He added that he had received the NII letter regarding the shortfalls that AWE(B) do not expect to complete by the September decision date. He indicated that he expected AWE to respond positively to the letter as it gives visibility on the issues that NII regard as important.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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NII Site Inspector  
April 2007

Distribution:



IIS Co-ordinator - 

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