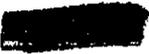


**HEALTH & SAFETY EXECUTIVE  
NUCLEAR SAFETY DIRECTORATE  
ASSESSMENT REPORT**

Site :  Hinkley Point B  
Project : Reactor Core  
Title : Resolution of Issues Arising from the Assessment of  
NSC/03/2166 Issue 1.  
Licence No. 62   
Licence Condition No. 14  
ARF No. 20072  
IES Rating 3

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## SUMMARY

### Background

1. During the assessment of the safety case justifying the continued operation of [REDACTED] following its periodic shutdown in 2003, I raised a number of issues that British Energy needed to be address by further work. At Level 3 and 4 meetings throughout 2003 and 2004, I advised British Energy of the importance of resolution of these issues and their relevance to the evolving stages (RACSC2 and RACSC3) of the safety case. During this period, British Energy had provided two responses, which I judged did not fully address the issues. ARF 20072 requests that I pursue resolution of these issues.
2. This report details the assessment of the adequacy of British Energy's response to progress closure of the issues raised in June 2003.

### Conclusions

3. I conclude that Issues 1 to 8, raised in June 2003, cannot be closed based on;
  - The lack of clarity provided by British Energy on how and when they will address their proposed strategy for validation of the input and outputs of the predictive methodology.
  - The continued uncertainty in prediction of behaviour of HPB [REDACTED] cores and the evidence of diverging behaviour between HPB and [REDACTED] cores (Reference 26).
  - The lack of clarity in the research projects being undertaken by British Energy to address the understanding of cracking.
  - The lack of progress made by British Energy in addressing all issues.
  - The lack of evidence provided by British Energy to demonstrate that improvements have been made in the areas to which the issues relate.
  - The uncertainty in successful completion of British Energy's proposed monitoring strategy.

### Recommendations

4. Taking into account the assessment detailed in this report and the resulting conclusions, I recommend that:
  - Nil's assessment of further graphite core safety cases take due account of the weakness in the current level of validation when forming a view on the adequacy of the structural integrity predictions.
  - resolution of Issues 1, 2 and 3 be pursued in conjunction with action SO2.A4 of Nil's strategy to secure adequate and ALARP graphite core safety cases (Reference 18).
  - Nil's assessment of further graphite core safety cases take due account of the reliance on increased inspection in lieu of an understanding of cracking when forming a view on the adequacy of the structural integrity predictions and the safety case as a whole.

- Resolution of Issues 4 be addressed in conjunction with action SO3.A1 of NII's strategy to secure adequate and ALARP graphite core safety cases (Reference 18).
- assessment of the inspection leg of this case be undertaken by NSD Division 1d.
- resolution of Issues 5, 6 and 7 be addressed in conjunction with action SO2.A1 of NII's strategy to secure adequate and ALARP graphite core safety cases (Reference 18).
- I recommend that assessment of the monitoring leg of the safety case is undertaken by NSD Division 1E.
- Resolution of Issue 8 is addressed in conjunction with action SO2.A2 of NII's strategy to secure adequate and ALARP graphite core safety cases (Reference 18).