

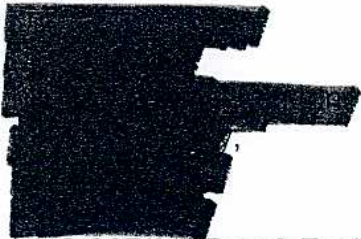


**HEALTH & SAFETY EXECUTIVE**  
**NUCLEAR SAFETY DIRECTORATE**  
**ASSESSMENT REPORT**

Site : Oldbury  
Project : Graphite Core Safety Case  
Title : Review of the safety case for the integrity of the Reactor 1  
graphite core  
Licence No. 57  
Licence Condition No. 14, 22, 23  
ARF No. 19912 and Service Order 4031916  
Assessment Rating: Adequate (Green)  
Time spent on ARF: 10 staff-days

Author:  Signed: ..... Date: .....  
Accepted:  Signed: ..... Date: .....  
(Unit 1D SI)

Distribution: 

File: NUC 307/3/2 Part 9 Enclosure 20  
NUC 133/13/4 Part 1 Enclosure 59

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## SUMMARY

### Background

1. Previous assessments of the safety case for the reactor cores at Oldbury were reported in December [REDACTED]. A number of recommendations were made regarding the graphite core safety case and the position on each of these are considered. One of the key recommendations was a requirement to shutdown Reactor 1 before peak mean brick weight loss of 34.5%, based upon current radiolytic weight loss predictions. Magnox Electric confirmed that Reactor 1 would be shutdown before this limit is achieved.

2. NP/SC 4734 Addendum 2 Issue 1 reviews the safety case presented in Addendum 1 and in the light of development work carried out since, proposes the extension of operation of Reactor 1 until its next statutory outage in [REDACTED]

### Objective and Scope

3. The objective of this assessment is to establish the adequacy of the safety case for operation of Reactor 1 to its periodic shutdown commencing on [REDACTED]

### Conclusions

4. I judge that the key changes and developments to the safety case, since my last assessment in December [REDACTED], has either made no change to the conclusions from that assessment or enhanced my confidence in the safety case predictions.

### Recommendations

5. I recommend continued operation of Reactor 1 until its periodic shutdown in [REDACTED] when the peak mean brick weight loss is predicted to be 34.5%.

## CONCLUSIONS

64. I judge that the key changes and developments to the safety case, since my last assessment in December [REDACTED], has either made no change to the conclusions from that assessment or enhanced my confidence in the safety case predictions.

## RECOMMENDATIONS

### Those requiring regulatory action

65. I recommend continued operation of Reactor 1 until its periodic shutdown in [REDACTED] when the peak mean brick weight loss is predicted to be 34.5%.