

HEALTH AND SAFETY EXECUTIVE  
HM NUCLEAR INSTALLATIONS INSPECTORATE  
CONTACT REPORT

LEVEL 4 MEETING ON HINKLEY POINT B / HUNTERSTON B  
GRAPHITE CORE SAFETY CASE

1. NAMES OF NSD STAFF

a)

b)

2. DATES OF VISIT

a) 5 April 2006.

b) 26 April 2006.

3. LOCATION

HSE, Redgrave Court, Bootle.

4. PURPOSE

The purpose of these meetings was for British Energy to advise NII on significant changes to the Reactor 3 return to service safety case for Hinkley Point B and Hunterston B graphite core safety case and in particular monitoring.

5. NAMES OF PRINCIPAL PERSONS SEEN

6. POINTS OF GENERIC INTEREST

None.

7. SUMMARY

The key points from the meeting were:

- BE presented an overview of the monitoring undertaken, how this was being used in the safety case and the benefits arising. BE reported that the safety case will not use new limits to assess monitoring results against but would continue to adopt current fault studies limits.
- At the meeting on BE reported that they had decided to set criteria for assessment of monitoring results. Their intent was to have in place, before return to service of the criteria as follows: low level for warning and a higher level for action.
- There were a number of issues relating to sentencing of inspection results that were unlikely to be resolved quickly.

## KEY POINTS OF DISCUSSION

The following were key points arising from the discussions with British Energy:

- BE presented an overview of the monitoring undertaken, how this was being used in the safety case and the benefits arising. BE reported that the [REDACTED] will not use new limits to assess monitoring results against but would continue to adopt current fault studies limits.
- BE reported that the seismic safety case is bounded by the static case and that displacements of around [REDACTED] of the static case were predicted in the seismic safety case.
- During discussion of the required probability of impairment of control rod insertion [REDACTED] pointed out that as spurious trip is assumed to occur at a frequency of one per year then the probability of failure to shutdown on demand needs to be less [REDACTED].
- There was a long debate regarding criteria that would be adopted against which to assess monitoring results. BE stated at the [REDACTED] meeting that their intent was to have a process against which to assess results. Criteria against which to assess the results would be determined when the situation arose. [REDACTED] considered that if clear safety benefit could be derived from monitoring then it should be possible to determine criteria against which monitoring results are sentenced now rather than when untoward indications occurred. This would ensure a more reasoned and logical approach. At the subsequent meeting on [REDACTED] reported that they had considered the discussions at the previous meeting and decided to set criteria for assessment of monitoring results. Their intent was to have in place, before return to service of the [REDACTED] criteria as follows: low level for warning and a higher level for action.
- On [REDACTED] reported that verification of the safety case is complete and is currently undergoing INSA.
- Discussions took place on the scope for CBMU of all channels emptied for TV inspection. BE reported that stations are preparing ALARP justifications. [REDACTED] asked what the implications were if rather than TV inspection of all channels emptied for inspection all channels were CBMU'ed. BE agreed to consider this option.
- Discussion took place regarding criteria for sentencing inspection results. [REDACTED] stated that if the same criteria were used as were applied to the Hinkley Point B [REDACTED] then he would have a number of issues. BE reported that if an axial crack was detected during TV inspection that was >80% full height then CBMU would be undertaken irrespective of the impact on outage duration. The meeting agreed a need for a follow-up meeting to discuss sentencing criteria for axial keyway cracking. BE reported that if they find one keyway crack during the periodic shutdowns then they will be outside their safety case.
- During discussion of inspection related issues it became apparent that the occurrence of bore-initiated cracking (occurring in addition to keyway initiated-cracking) apparently had not been factored into the safety case. BE agreed to consider the need for a limit on the extent of bore-initiated cracking.

