



PROJECT ASSESSMENT REPORT			
Unique Document ID and Revision No:	ONR-HPB-PAR- 15- 020 Revision 0	TRIM Ref:	2015/445475
Project:	Hinkley Point B – Gas Turbine Fuel Oil Tanks		
Site:	Hinkley Point B		
Title:	Nuclear Site Licence No. 62C – Licence Condition 23(6) Agreement to suspension of approved operating rule under Licence Condition 23(6)		
Licence Instrument No: (if applicable)	LI-550		
Nuclear Site Licence No:	62C		
Licence Condition:	23(6)		

Document Acceptance and Approval for Issue / Publication

Role	Name	Position	Signature	Date
Author	[REDACTED]	Inspector		25 th November 2015
Reviewer	[REDACTED]	Principal Inspector		25 th November 2015
Accepted by ¹	[REDACTED]	Superintending Inspector		25 th November 2015
Approval for publication ²	[REDACTED]	Superintending Inspector		25 th November 2015

Revision History

Revision	Date	Author(s)	Reviewed By	Accepted By	Description of Change
A	25 th November 2015	[REDACTED]	[REDACTED]	n/a	1 st draft for review
B	25 th November 2015	[REDACTED]	[REDACTED]	n/a	2 nd draft incorporating comments
0	25 th November 2015	[REDACTED]	[REDACTED]	[REDACTED]	First accepted issue

¹ Acceptance of the PAR to allow release of LI

² Approval is for publication on ONR web-site, after redaction where relevant

Circulation (latest issue)

Organisation	Name	Date
Office for Nuclear Regulation	██████ - DCI and Director of CNRP (Cover page and summary only) ██████ – Superintending Inspector and CNRP Delivery Lead ██████ – Superintending Inspector and Head of Technical Assessment ██████ – Engineering DMG Lead ██████ – Fault Studies DMG Lead Site Inspector - ██████	November 2015
Environment Agency	██████ – Hinkley Point B Site Inspector	
Licensee	██████ – Technical Safety and Support Manager	

Hinkley Point B – Gas Turbine Fuel Oil Tanks – Suspension of Nuclear Safety Requirement

Nuclear Site Licence No. 62C – Licence Condition 23(6) Suspension of Nuclear Safety Requirement 6.1.1

Project Assessment Report ONR-HPB-PAR-15-020
Revision 0
25th November 2015

© Office for Nuclear Regulation, 2015

If you wish to reuse this information visit www.onr.org.uk/copyright for details.

Published 10/15

For published documents, the electronic copy on the ONR website remains the most current publicly available version and copying or printing renders this document uncontrolled.

EXECUTIVE SUMMARY

Title

EDF Energy Nuclear Generation Ltd – Hinkley Point B Power Station - Licence Instrument LI 550 - Agreement to a suspension of approved operating rule (Nuclear Safety Requirement (NSR)) under Licence Condition 23(6) until 25 November 2016.

Permission Requested

EDF Energy Nuclear Generation Limited (NGL), the operator (known as the licensee) of Hinkley Point B power station, has requested agreement from the Office for Nuclear Regulation (ONR) to suspend approved NSR 6.1.1. This agreement is required by Licence Condition 23(6) of its nuclear site licence.

Background

NGL has recently undertaken a seismic withstand assessment of the Gas Turbine Fuel Oil Tanks. The assessment has identified that in order for the tanks to withstand an infrequent seismic event, the maximum stock holding per tank should be less than 220,000 litres, and for a frequent seismic event the level is 313,000 litres.

The current Nuclear Safety Requirement (NSR) 6.1.1 and the Limiting Condition for Operation (LCO) 6.1.1 require a minimum of 290,000 litres per tank, which is greater than the maximum figure for infrequent events.

NGL therefore wish to reduce both the maximum and minimum stock levels within the tank to bring it within the margins for both frequent and infrequent seismic events whilst still maintaining the minimum fuel needed as stated within the safety case. This will be done by updating both the NSR and LCO, the latter of which will be undertaken at a later date under a separate EC.

Assessment and inspection work carried out by ONR in consideration of this request

As the suspension of the NSR results in a reduction of the level of fuel within the fuel tanks, a high level assessment of the EC was undertaken and a number of questions were raised with NGL. The matter was discussed briefly with relevant ONR technical specialists and the nominated ONR site inspector and it was decided that no specific detailed technical input was required.

Matters arising from ONR's work

No issues preventing issue of this Licence Instrument arose from the assessment of the Licensee's safety justification by ONR.

Conclusions

ONR's assessment of the Licensee's safety justification, together with the work of the ONR Nominated Site Inspector, provides confidence that it is safe to suspend NSR 6.1.1. until 25 November 2016.

Recommendation

This Project Assessment Report recommends that ONR issue Licence Instrument 550 giving Agreement to a suspension of NSR 6.1.1. until 25 November 2016.

LIST OF ABBREVIATIONS

AGR	Advanced Gas-cooled Reactor
ALARP	As low as reasonably practicable
COMAH	Control Of Major Accident Hazards
EC	Engineering Change
GT	Gas Turbine
HPB	Hinkley Point B Power Station
HOW2	(Office for Nuclear Regulation) Business Management System
HSE	Health and Safety Executive
INSA	Independent Nuclear Safety Assessment
LC	Licence Condition
LI	Licence Instrument
NGL	EdF Energy Nuclear Generation Limited
NSR	Nuclear Safety Requirement
ONR	Office for Nuclear Regulation

TABLE OF CONTENTS

1	PERMISSION REQUESTED.....	8
2	BACKGROUND.....	8
3	ASSESSMENT AND INSPECTION WORK CARRIED OUT BY ONR IN CONSIDERATION OF THIS REQUEST	8
4	MATTERS ARISING FROM ONR'S WORK.....	10
5	CONCLUSIONS	10
6	RECOMMENDATIONS	10
7	REFERENCES	11

1 PERMISSION REQUESTED

1. Edf Energy Nuclear Generation Limited (NGL), the operator and Licensee of Hinkley Point B nuclear power station, has written to the Office for Nuclear Regulation (ONR) requesting an Agreement for a suspension of an approved Nuclear Safety Requirement (NSR). This Project Assessment Report considers this request and recommends issuing Licence Instrument (LI) 550 under Licence Condition (LC) 23(6) giving Agreement for the suspension of Nuclear Safety Requirement (NSR) 6.1.1 Issue 2 dated 27th April 2000 until 25th November 2016.

2 BACKGROUND

2. A recent seismic withstand assessment undertaken by NGL of the Gas Turbine Fuel Oil Tanks has identified that in order for the tanks to withstand an infrequent seismic event, the maximum stock holding per tank should be less than 220,000 litres, and for a frequent seismic event the level is 313,000 litres.
3. The current Nuclear Safety Requirement (NSR) 6.1.1 and the Limiting Condition for Operation (LCO) 6.1.1 require a minimum of 290,000 litres per tank, which is greater than the maximum figure for infrequent events.
4. On 5th July 2015, NGL wrote (HPB51333R, Ref 2) to ONR requesting an Agreement to suspension of approved NSR under Licence Condition 23(6). Attached to the letter was a safety justification supporting the suspension of the NSR. This Engineering Change (EC) proposal, EC353744 Version 03, was a Category 2 modification, signifying that the licensee judged the proposal, if inadequately conceived or executed, might lead to a significant but not serious increase in the risk of a radiological hazard. EC353744 underwent an independent nuclear safety assessment (INSA), the approval statement for which was contained within an attachment to the request letter by NGL's internal nuclear regulator (Ref 2). No caveats were raised during this assessment.
5. I sought clarity from NGL why they had decided to request a suspension of the NSR rather than requesting a change to the NSR to reduce the fuel level. The response (Ref 3) stated that they believed that with the known interaction with the new nitrogen plant programme at the time the route via a suspension of the NSR would lead to being in a seismically compliant position with the tanks earlier than if they opted for changing the NSR. This therefore gave them a strategy that allows the station to adopt a position where the storage of fuel achieves a safer position with respect to seismic withstand capability as soon as reasonably practicable; and, one where they could latterly address the NSR requirement to give secure ONR approved oversight.

3 ASSESSMENT AND INSPECTION WORK CARRIED OUT BY ONR IN CONSIDERATION OF THIS REQUEST

6. I have considered NGL's request for ONR Agreement to the suspension of an approved NSR. I have:
 - Followed ONR procedures for delivering a permissioning project, as detailed in HOW2 (Ref 4).
 - Discussed the proposal with station staff and reviewed supporting information (Refs 6 & 7).
 - Discussed with the ONR Nominated Site Inspector.
7. The decision to proceed using high level ONR assessment was agreed within CNRP on the basis that it had been used in the past for similar requests and was in line with guidance provided in HOW2 (the ONR Business Management System).

8. I have taken note of the findings of NGL's internal regulator's assessment of the safety case made in the INSA approval statement (Ref 2). The INSA Engineer considered the justification for the suspension of an approved NSR and did not identify any issues related to its suspension. No caveats were raised and no commitments requiring INSA review were identified.
9. The safety claims within the EC are based on continued operation being justified pending completion of seismic qualification and that during any suspension the safety case requirements continue to be met. The nuclear safety risk associated with this proposed suspension is As Low As Reasonably Practicable (ALARP) due to achieving the requirements from seismic qualification of the Gas Turbine (GT) fuel tanks.

3.1.1 COMMITMENTS MADE WITHIN THE EC

There were ten commitments and four actions identified within the EC, of which Commitments 1 to 3 and Actions 1 to 4 had target completion dates that had now passed. I therefore sought confirmation that these commitments and actions had been completed. Station responded (Ref 6) that there were a number of commitments and actions that were not yet completed. As a consequence of this, I sought further clarification from site on a number of technical areas. My questions were focussed on ensuring that there is sufficient fuel to provide the safety functions within the safety case. It was noted that the INSA review had not checked or validated any fuel oil usage rate. The station subsequently provided responses (Ref 7). These responses were reviewed and the evidence and calculations presented gave me confidence that NGL had sufficiently answered my questions.

3.2 OTHER GOVERNMENT DEPARTMENT LIAISON

3.2.1 ENVIRONMENT AGENCY

10. The views of the Environment Agency Site Inspector were sought over the proposed suspension of the NSR and as the risk to the environment will be reduced as a result of the reduction in the amount of fuel within the tanks, they do not have any objections and will continue to pursue integrity of tanks and bunds under the Control Of Major Accident Hazards (COMAH) (Ref 8).

3.3 REGULATORY CONSIDERATIONS

11. I have considered NGL's request for an ONR Agreement for suspension of an approved NSR and have discussed this with the ONR Nominated Site Inspector. I noted that:
 - NGL have requested agreement to the suspension of an approved NSR at Hinkley Point B under the correct licence condition, LC23 (6).
 - NGL's justification to a suspension of an approved NSR at Hinkley Point B, EC353744 Version 3, has completed the company's due process for a Category 2 submission in the production, review and authorisation of the statutory outage deferral justification. The safety case received full INSA approval with no caveats being raised.
 - NGL's justification to a suspension of an approved NSR at Hinkley Point B has not been assessed by specialist assessors within ONR because the suspension of the NSR will result in a reduced fuel hazard.
 - The Agreement requested by NGL requires the issue by ONR of a non-routine Licence Instrument. The wording for non-routine Licence Instrument

LI 550 has been reviewed by the Treasury Solicitor's Office (Ref 9) and the Licence Instrument has been confirmed as acceptable.

4 MATTERS ARISING FROM ONR'S WORK

12. No issues preventing issue of this LI arose from the high level assessment of the Licensee's safety justification.

5 CONCLUSIONS

13. I judge that NGL has made an adequate justification for the suspension of an NSR based on:
- NGL's safety case presented in EC353744 Version 3 having satisfactorily completed company due process.
 - NGL's safety case having INSA approval with no caveats being raised.
 - All commitments in EC353774 Version 3 addressed or assigned.
 - Assessment of the deferral safety justification by myself and the nominated ONR site inspector.

6 RECOMMENDATIONS

14. I recommend that the Superintending Inspector;
- Signs this Project Assessment Report to confirm acceptance for the technical and regulatory arguments that justify issuing of Hinkley Point B Licence Instrument 550.
 - Signs Hinkley Point B Licence Instrument 550 an Agreement under Licence Condition 23(6) to suspend NSR (NSR) 6.1.1 until 22nd November 2016.
 - Signs this Project Assessment Report approving its release for publication, after redaction where appropriate.

7 REFERENCES

1. Hinkley Point B – Licence Instrument (Consent) No 550 under LC23 (6). Agreement to the suspension of operating rule. 23rd November 2015. TRIM 2015/428113.
2. Hinkley Point B Power Station, Nuclear Site Licence No. 62C – Licence Condition 23(6) Request for agreement to suspension of approved operating rule under Licence Condition 23(6), HPB51333R, NGL, 5^h May 2015, TRIM 2015/408767.
3. Station Response to request for explanation on decision to request approval for suspension, rather than changing the NSR. November 2015. TRIM 2015/444937.
4. *ONR HOW2 Guide - Purpose and Scope of Permissioning - NS-PER-GD-014 Revision 4*. July 2014. <http://www.onr.org.uk/operational/assessment/index.htm>
5. Station Response to Questions Raised by [REDACTED] on Request to suspend operating rule. October 2015. TRIM 2015/408736.
6. Station Response to status of commitments made within EC 353744. November 2015. TRIM 2015/426446.
7. Station Response to technical questions related to minimum stock levels within the fuel tanks. November 2015. TRIM 2015/426405.
8. Hinkley Point B Operating Rule Suspension, Environment Agency Position on Suspension of NSR, Environment Agency, 23rd November 2015, TRIM 2015/441494.
9. Hinkley Point B Operating Rule Suspension. Government Legal Department review of the LI under LC23 (6) Agreement for Hinkley Point B. 13th November 2015, TRIM 2015/428237.