

PROJECT ASSESSMENT REPORT			
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<b>Project:</b>	Replacement of NSR 6 Issue 2, with NSR 6 Issue 3		
<b>Site:</b>	Hartlepool		
<b>Title:</b>	Request for approval under Licence Condition 23(5) of amendment to Hartlepool operating rules (Nuclear Safety Requirements NSR 6, Electrical supplies)		
<b>Licence Instrument No:</b> (if applicable)	Approval LI 556		
<b>Nuclear Site Licence No:</b>	59		
<b>Licence Condition:</b>	23(5)		

#### Document Acceptance and Approval for Issue / Publication

Role	Name	Position	Signature	Date
Author	[REDACTED]	Inspector		25 01 2016
Reviewer	[REDACTED]	Principal Inspector		25 01 2016
Accepted by <sup>1</sup>	[REDACTED]	Superintending Inspector		25 01 2016
Approval for publication <sup>2</sup>	[REDACTED]	Superintending Inspector		

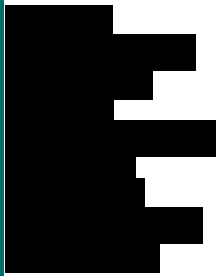
#### Revision History

Revision	Date	Author(s)	Reviewed By	Accepted By	Description of Change
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0	25 01 2016	[REDACTED]	[REDACTED]	[REDACTED]	First accepted issue

<sup>1</sup> Acceptance of the PAR to allow release of LI

<sup>2</sup> Approval is for publication on ONR web-site, after redaction where relevant

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Organisation	Name	Date
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Environment Agency	n/a	
Licensee	n/a	

**Replacement of NSR 6 Issue 2 with NSR 6 Issue 3**

**Request for approval under Licence Condition 23(5) of amendment to Hartlepool  
operating rules (Nuclear Safety Requirements NSR 6, Electrical supplies)**

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## EXECUTIVE SUMMARY

### Title

Request for approval under Licence Condition 23(5) of amendment to Hartlepool operating rules (Nuclear Safety Requirements NSR 6, Electrical supplies).

### Permission Requested

EDF Energy Nuclear Generation Limited (NGL), the owner and operator (the Licensee) of Hartlepool power station, has requested approval under Licence Condition 23(5) to amend an approved operating rule (Nuclear Safety Requirement NSR 6, Electrical supplies).

### Background

NSR 6 establishes requirements for the availability of electrical power supplies. The purpose of this change is to reflect the completion of a project at Hartlepool to replace five motor alternator sets, which provide guaranteed no-break electrical supply, with five more modern dual inverter sets.

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

The licensee's proposed amendment to NSR 6 has been reviewed by an ONR Inspector and is considered to be editorial in nature. The amendments involve replacing references to "Motor Alternator(MA) Sets and dual inverters" within the document with "dual inverters" to reflect the fact that all the MA sets have now been replaced with dual inverters.

Therefore ONR does not consider that assessment or inspections are necessary to support this decision.

### Matters arising from ONR's work

No matters were identified.

### Conclusions

I am satisfied that implementation of the proposed amendment of NSR 6 Issue 3, dated 23 October 2015, does not challenge nuclear safety.

### Recommendation

Approval of Hartlepool NSR 6 Issue 3, dated 23 October 2015, under condition LC23(5) of site licence 59 should be granted by issuing Licence Instrument 556.

## LIST OF ABBREVIATIONS

EC	Engineering Change
LC	Licence Condition
LI	Licence Instrument
MA	Motor Alternator
NGL	EDF Energy Nuclear Generation Ltd
NSC	Nuclear Safety Committee
NSR	Nuclear Safety Requirement
ONR	Office for Nuclear Regulation
PAR	Project Assessment Report

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## 1 PERMISSION REQUESTED

1. The Licensee requested ONR's 'Approval' under Licence Condition 23(5) to replace Nuclear Safety Requirement (NSR) 6, Issue 2 dated 22 November 2013, with NSR 6 Issue 3 dated 23 October 2015. Hartlepool's NSR 6 Issue 2 was approved through the issue of Licence Instrument (Approval) 547, site licence number 59, on 4 December 2013.

## 2 BACKGROUND

2. As required under its arrangements, Hartlepool has made a request [1] under Licence Condition (LC) 23(5) attached to nuclear site licence number 59 for the Office for Nuclear Regulation's (ONR) Approval to the replacement of NSR 6 Issue 2 with NSR 6 Issue 3. This amendment has been categorised as a category 3 engineering change (EC) in accordance with the licensee's arrangements.
3. NSR 6 establishes requirements for the availability of no-break electrical power supplies. The purpose of this amendment is to reflect the completion of a programme of work at Hartlepool to replace five motor alternator (MA) sets, with five modern static parallel dual inverters aimed at improving reliability.
4. The programme of work to replace the ageing MA sets commenced a number of years ago, driven by concerns regarding obsolescence and deteriorating reliability. The units form part of the electrical no-break system which converts DC electrical power to AC electrical power ensuring electrical supply to safety related equipment and instrumentation on the plant. During the period 2013 to 2015, all five MA sets were progressively replaced with modern dual static inverter sets that perform the same function. The work was controlled by the licensee via a series of category 2 staged submissions in accordance with their arrangements made under their modification process. These modifications are now complete and all five redundant MA sets have now been removed from the plant.
5. To enable this staged replacement an approval was sought by NGL to amend NSR 6 Issue 1, to NSR 6 Issue 2 to allow the use of both the older MA sets and the new dual inverter sets. Approval for this was granted by ONR on 4 December 2013 and LI 547 was issued. The replacement of the five MA sets has now been completed and NGL have now sought approval of a further amendment of NSR 6 that removes reference to the use of the MA sets.
6. Assessment of this work and permissioning of the required amendment to NSR 6 (replacement of Issue 1 with Issue 2) to allow the staged replacement of MA sets with dual inverter sets was considered in the project assessment report (PAR) [2] that supported the issuing of LI 547 in December 2013.



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

7. Engineering change EC345902 Revision 0 [3] has been categorised at category 3 by the Licensee and describes the proposed changes to: NSR 6 (Issue 1); technical specification 6.3.1, 6.3.4, 6.4.1 and 6.4.2; and associated technical specification commentaries.
  - The first proposed change is to change the name of the equipment from “MA Sets” to “MA Sets or Dual Inverters”. This was required to allow use of both MA sets and Dual Inverters during implementation work and was reflected in NSR 6 Issue 2 – approved by LI 547 in December 2013.
  - The second proposed change and the subject of this PAR is to change the name of equipment from “MA Sets and Dual Inverters” to “Dual Inverters”, addressing the fact that all the MA sets have now been replaced. These changes are captured in NSR 6 Issue 3 for which approval has been requested.
8. EC345902 Revision 0 has completed the Licensee’s due process. A milestone full INSA approval statement for it was provided with the Licensee’s request letter submitted at the time they required the first NSR 6 update [4]. It supported the categorisation and did not place any caveats. A copy of a relevant extract from the minutes from the 10 October 2013 NGL nuclear safety committee (NSC) minutes was also provided [4]. The NSC noted the proposed change and its categorisation.
9. As the proposed amendments from NSR 6 Issue 2 to Issue 3 are considered to be editorial in nature - reflecting the fact that the work to replace the MA sets with dual inverters has been completed - it is considered that no further assessment or inspection is necessary.

### **4 MATTERS ARISING FROM ONR’S WORK**

10. There were no matters arising from ONR’s work relating to this Approval request.

### **5 CONCLUSIONS**

11. NSR 6 Issue 2 dated 22 November 2013, was approved by ONR on 4 December 2013 and so an amendment or modification of that document requires the Licensee to request ONR’s Approval under condition LC23(5) of site licence number 59.
12. I am satisfied that the implementation of the modification to NSR 6 Issue 2 dated 22 November 2013, described in [1], does not challenge nuclear safety.

## 6 RECOMMENDATIONS

13. I recommend that the Superintending Inspector:
  - Signs this Project Assessment Report to confirm support for the technical and regulatory arguments that justify issuing of Licence Instrument 556.
  - Signs this Project Assessment Report approving its release for publication, after redaction where relevant.
  
14. I recommend that the ONR Deputy Chief Inspector, who is authorised to act on behalf of ONR as described in the delegated authorities, signs Licence Instrument 556 granting Approval of Hartlepool NSR 6 Issue 3 dated 23 October 2015 under condition LC23(5) of site licence number 59.

## 7 REFERENCES

- [1] NGL, *Hartlepool Letter: Request for Approval under LC 23(5) of amendment to Hartlepool operating rules. NSL HRA 51082R. 23 october 2015. TRIM 2015/405371.*
- [2] ONR, *Request for APPROVAL under LC 23(5) of amendment to Hartlepool operating rules (Nuclear Safety Requirements NSR6, Electrical supplies), ONR-HRA-PAR-13-037, 3 December 2013. TRIM 2013/412516.*
- [3] NGL, *Engineering Change 345902 Revision 0, attached to request letter: TRIM 2015/405371.*
- [4] NGL, *Hartlepool Letter: Request for Approval under LC 23(5) of amendment to Hartlepool operating rules. NSL HRA 51017R. 25 October 2013. TRIM 2013/399347.*