

GE Healthcare Limited

The Grove Centre, Amersham Emergency Arrangements

Request for approval of amendments to the GE Healthcare Limited Grove Centre Emergency Plan made under Licence Condition 11(3)

> Project Assessment Report ONR-SDFW-PAR-21-017 Revision 0 September 2022

© Office for Nuclear Regulation, 2022 If you wish to reuse this information visit <u>www.onr.org.uk/copyright</u> for details. Published 09/22

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

This report presents the findings of the Office for Nuclear Regulation's (ONR) consideration of GE Healthcare's (GEHC) request for approval to amend the approved Grove Centre emergency arrangements.

Permission Requested

GEHC, the licensee for the Grove Centre, Amersham, has written to ONR requesting Approval under Licence Condition (LC) 11, emergency arrangements, to amend the site's Emergency Plan.

Background

LC 11, emergency arrangements, requires the licensee to make and implement adequate arrangements for dealing with any accident or emergency arising on the site and their effects. To comply with this requirement the licensee issues an Emergency Plan.

ONR previously approved the Grove Centre site Emergency Plan using primary powers under LC 11(3). To comply with LC 11(3) the licensee must obtain ONR's Approval for further amendment to the previously Approved Emergency Plan.

GEHC has ceased all production activities at the Grove Centre, thereby reducing the radiological hazard and risk at the site. The site is now carrying out decommissioning activities only, with no work normally being carried out outside normal hours. Continuous on-site safety and security will continue to be provided by security guards during silent hours.

The licensee has carried out a review of its Emergency Plan and identified some changes it considers to be necessary. As required by LC 11(3), the licensee has written to ONR to request approval of its amended emergency arrangements so that it can incorporate them into its Emergency Plan.

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

ONR has carried out a programme of work that includes inspection of the licensee's proposal to ensure it is consistent with the requirements of LC 11. This included ONR's observation of a demonstration of the proposed amended Emergency Plan.



Matters arising from ONR's work

There are no matters arising from this Project Assessment Report (PAR).

Conclusions

I am satisfied that the licensee's proposed amendment to the Emergency Plan adequately satisfies the requirements of LC11.

Recommendation

I recommend that in accordance with LC 11(3), ONR approves the proposed amendment to GEHC's Grove Centre Emergency Plan.



© Office for Nuclear Regulation UNCONTROLLED WHEN PRINTED If you wish to reuse this information visit www.onr.org.uk/copyright for details.

Report ONR-SDFW-PAR-21-017 CM9 Ref: 2022/18037

LIST OF ABBREVIATIONS

BSLBasic Safety level (in SAPs)BSOBasic Safety Objective (in SAPs)CNSCivil Nuclear Security (ONR)EAEnvironment AgencyGEHCGE Healthcare LtdHOW2(Office for Nuclear Regulation) Business Management SystemHSEThe Health and Safety ExecutiveIAEAThe International Atomic Energy AgencyLCLicence ConditionLILicence InstrumentNDANuclear Decommissioning AuthorityNSCNuclear Safety CommitteeONROffice for Nuclear RegulationPARProject Assessment ReportPCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPRelevant Good PracticeSAPSo far as is reasonably practicableSSCStructure, System and ComponentTAGTechnical Assessment Guide (ONR)	ALARP	As low as reasonably practicable
CNSCivil Nuclear Security (ONR)EAEnvironment AgencyGEHCGE Healthcare LtdHOW2(Office for Nuclear Regulation) Business Management SystemHSEThe Health and Safety ExecutiveIAEAThe International Atomic Energy AgencyLCLicence ConditionLILicence InstrumentNDANuclear Decommissioning AuthorityNSCNuclear Safety CommitteeONROffice for Nuclear RegulationPARProject Assessment ReportPCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPRelevant Good PracticeSAPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	BSL	Basic Safety level (in SAPs)
EAEnvironment AgencyGEHCGE Healthcare LtdHOW2(Office for Nuclear Regulation) Business Management SystemHSEThe Health and Safety ExecutiveIAEAThe International Atomic Energy AgencyLCLicence ConditionLILicence InstrumentNDANuclear Decommissioning AuthorityNSCNuclear Safety CommitteeONROffice for Nuclear RegulationPARProject Assessment ReportPCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	BSO	Basic Safety Objective (in SAPs)
GEHCGE Healthcare LtdHOW2(Office for Nuclear Regulation) Business Management SystemHSEThe Health and Safety ExecutiveIAEAThe International Atomic Energy AgencyLCLicence ConditionLILicence InstrumentNDANuclear Decommissioning AuthorityNSCNuclear Safety CommitteeONROffice for Nuclear RegulationPARProject Assessment ReportPCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	CNS	Civil Nuclear Security (ONR)
HOW2(Office for Nuclear Regulation) Business Management SystemHSEThe Health and Safety ExecutiveIAEAThe International Atomic Energy AgencyLCLicence ConditionLILicence InstrumentNDANuclear Decommissioning AuthorityNSCNuclear Safety CommitteeONROffice for Nuclear RegulationPARProject Assessment ReportPCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	EA	Environment Agency
HSEThe Health and Safety ExecutiveIAEAThe International Atomic Energy AgencyLCLicence ConditionLILicence InstrumentNDANuclear Decommissioning AuthorityNSCNuclear Safety CommitteeONROffice for Nuclear RegulationPARProject Assessment ReportPCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	GEHC	GE Healthcare Ltd
IAEAThe International Atomic Energy AgencyLCLicence ConditionLILicence InstrumentNDANuclear Decommissioning AuthorityNSCNuclear Safety CommitteeONROffice for Nuclear RegulationPARProject Assessment ReportPCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPRelevant Good PracticeSAPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	HOW2	(Office for Nuclear Regulation) Business Management System
LCLicence ConditionLILicence InstrumentNDANuclear Decommissioning AuthorityNSCNuclear Safety CommitteeONROffice for Nuclear RegulationPARProject Assessment ReportPCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPRelevant Good PracticeSAPSo far as is reasonably practicableSSCStructure, System and Component	HSE	The Health and Safety Executive
LILicence InstrumentNDANuclear Decommissioning AuthorityNSCNuclear Safety CommitteeONROffice for Nuclear RegulationPARProject Assessment ReportPCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPRelevant Good PracticeSAPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	IAEA	The International Atomic Energy Agency
NDANuclear Decommissioning AuthorityNSCNuclear Safety CommitteeONROffice for Nuclear RegulationPARProject Assessment ReportPCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPRelevant Good PracticeSAPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	LC	Licence Condition
NSCNuclear Safety CommitteeONROffice for Nuclear RegulationPARProject Assessment ReportPCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPRelevant Good PracticeSAPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	LI	Licence Instrument
ONROffice for Nuclear RegulationPARProject Assessment ReportPCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPRelevant Good PracticeSAPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	NDA	Nuclear Decommissioning Authority
PARProject Assessment ReportPCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPRelevant Good PracticeSAPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	NSC	Nuclear Safety Committee
PCSRPre-construction Safety ReportPSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPRelevant Good PracticeSAPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	ONR	Office for Nuclear Regulation
PSAProbabilistic Safety AnalysisPSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPRelevant Good PracticeSAPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	PAR	Project Assessment Report
PSRPreliminary Safety ReportREPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPRelevant Good PracticeSAPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	PCSR	Pre-construction Safety Report
REPPIRRadiation (Emergency Preparedness and Public Information) RegulationsRGPRelevant Good PracticeSAPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	PSA	Probabilistic Safety Analysis
RegulationsRGPRelevant Good PracticeSAPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	PSR	Preliminary Safety Report
SAPSafety Assessment Principle(s)SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	REPPIR	
SFAIRPSo far as is reasonably practicableSSCStructure, System and Component	RGP	Relevant Good Practice
SSC Structure, System and Component	SAP	Safety Assessment Principle(s)
	SFAIRP	So far as is reasonably practicable
TAG Technical Assessment Guide (ONR)	SSC	Structure, System and Component
	TAG	Technical Assessment Guide (ONR)



© Office for Nuclear Regulation UNCONTROLLED WHEN PRINTED If you wish to reuse this information visit www.onr.org.uk/copyright for details.

Report ONR-SDFW-PAR-21-017 CM9 Ref: 2022/18037

TABLE OF CONTENTS

1	PERMISSION REQUESTED	. 6
2	BACKGROUND	. 6
3	ASSESSMENT AND INSPECTION WORK CARRIED OUT BY ONR IN	
	CONSIDERATION OF THIS REQUEST	. 6
4	MATTERS ARISING FROM ONR'S WORK	. 7
5	CONCLUSIONS	. 8
6	RECOMMENDATIONS	. 8
7	REFERENCES	. 9



Report ONR-SDFW-PAR-21-017 CM9 Ref: 2022/18037

1 PERMISSION REQUESTED

1. GE Healthcare Limited (GEHC), the licensee for the Grove Centre site at Amersham, has written (Ref 1) to the Office for Nuclear Regulation (ONR) requesting Approval under Licence Condition 11(3), emergency arrangements, to amend the site's approved Emergency Plan. This report presents the findings of ONR's consideration of GEHC's request.

2 BACKGROUND

- 2. LC 11, emergency arrangements, requires the licensee to make and implement adequate arrangement for dealing with any accident or emergency arising on the site and their effects. To comply with this requirement, the licensee issues its Emergency Plan.
- 3. ONR has previously approved the Grove Centre Emergency Plan using primary powers under LC 11(3) (Ref. 3). LC 11(3) requires that once approved by ONR the licensee shall ensure that no alteration or amendment is made to the approved arrangements unless ONR has approved such alteration or amendment.
- 4. Since the previous LC 11 Approval the radiological risk and hazard at the site has reduced further as decommissioning has progressed and, consequently, the licensee has identified that an on-site fire and rescue team is no longer required. Emergency response during silent hours will continue to be provided by the continuous on-site security presence as per the extant Emergency Plan.
- 5. The proposed changes to the plan have completed the licensee's governance process, including consideration by the licensee's nuclear safety committee (NSC) (Refs 5 & 6).
- 6. As required by LC11 (3), the licensee has written (Ref 1) to ONR to request approval of its revised emergency plan (Ref 4).

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

- 7. I have considered GEHC's request for Approval in my role as the ONR Nominated Site Inspector for the Grove Centre site. I have followed ONR procedures as detailed in the management system (Ref. 2).
- 8. In my assessment of the proposed emergency plan, I have considered the differences between the extant emergency plan (Ref 8) and the proposed emergency plan (Ref 4).
- 9. The revised plan builds on the reductions made in the previous revision to the on-site capability to deal with accidents or emergencies and places the



Report ONR-SDFW-PAR-21-017 CM9 Ref: 2022/18037

responsibility for fire and rescue with the local emergency services. The site maintains command and control via a suitable on-site organisation including the use of a dedicated Emergency Control Room. These changes have been justified by GEHC in its radiological safety case number 13905 (Ref 5) and its Organisational Baseline Statement Issue 5 dated November 2021(LC36 submission) (Ref 7). I have completed a proportionate examination of the safety case and the LC36 submission and I am satisfied that the claims, arguments, and evidence adequately support the conclusion that the site's emergency response will continue to be adequate and proportionate to the ongoing operations and hazards at the Grove Centre.

- 10. The LC36 case identified a number of forward actions to be completed prior to implementation and a monitoring programme to monitor the effectiveness of the revised arrangements. The licensee has provided confirmation that adequate progress has been made with the completion of the identified actions such that permission may be granted to implement Issue 8 of the Emergency Plan. This confirmation was obtained at an on-site meeting held on the 17 March 2022. The details have been recorded in ONR-SDFW-CR-21-1061 (Ref 13).
- 11. I witnessed a demonstration of the proposed arrangements during a Level 1 emergency exercise on 28 January 2022. My findings are recorded in ONR-SDFW-IR-21-164 (Ref 9). There were some minor learning points for the licensee, however in my opinion this was an adequate demonstration of the arrangements.
- 12. I have received confirmation that ONR EP&R do not wish to undertake assessment of the proposed revised LC11 arrangements as the site does not require an off-site emergency plan under REPPIR 2019 (Ref. 10).
- 13. I have consulted with ONR Civil Nuclear Security concerning the proposed approval of the revised Emergency Plan. I have obtained confirmation that they have no objections to the approval being issued (Ref 11).
- 14. The Environment Agency (EA) has been consulted on ONR's proposed approval of the Grove Centre Emergency Plan and has confirmed that it has no objections to the Approval of the amended Emergency Plan (Ref 12).
- 15. I have drafted Licence Instrument (LI) 510 in response to the licensee's request for the approval of the GE Healthcare Limited Grove Centre Emergency Plan under Licence Condition 11(3). This LI is one of the standard formats given within ONR procedures and so does not require review by Treasury Solicitor's Department.

4 MATTERS ARISING FROM ONR'S WORK

16. There are no matters arising from this project assessment report.



5 CONCLUSIONS

- 17. In my opinion the licensee's proposed alteration or amendment of the Grove Centre site Emergency Plan is adequate to satisfy the requirements of LC11. In reaching my opinion I have taken into account the following:
 - ONR's interventions with the licensee on the proposed new arrangements, and an adequate demonstration of the new arrangements;
 - The proposal has followed the licensee's due process and is supported by its Nuclear Safety Committee; and
 - Confirmation that the change has no adverse impact upon nuclear safety as justified by the GEHC's LC36 safety case.

6 **RECOMMENDATIONS**

- 18. I recommend that a person with delegated authority within ONR:
 - Accepts the regulatory judgements in this report that justify issuing Licence Instrument 510, an Approval;
 - Approves this report for publication after redaction as appropriate; and
 - Signs Licence Instrument 510 giving effect to ONR's Approval of the proposed amendments to the Grove Centre Emergency plan under LC 11(3).



Report ONR-SDFW-PAR-21-017 CM9 Ref: 2022/18037

7 REFERENCES

- 1. GE Healthcare Limited ONR/878/A/R, letter from GE Healthcare Ltd. request for Approval of amendments to the GE healthcare limited Grove Centre Emergency Plan made under licence condition LC11(3), dated 24th November 2021 (CM9 ref. 2022/13578).
- 2. ONR Guide The Purpose and Use of Permissioning NS-PER-GD-001 Revision 5. May 2021. http://www.onr.org.uk/operational/assessment/index.htm
- 3. Licence Instrument 509 (CM9 ref. 2020/41565).
- 4. GE Healthcare Ltd, the Grove Centre Emergency Plan Issue 8 dated 17th November 2021 (CM9 ref. 2022/13580).
- 5. GE Healthcare Ltd, Cat B NSC paper RSC 13905 "Changes to the Emergency Response Arrangements at the Grove Centre Issue 2 dated 24 November 2021 (CM9 ref. 2022/18383).
- 6. GE Healthcare UK Nuclear Licensed Sites NSC minutes of meeting held 9th November 2021 to consider the proposed Issue 8 of the Grove Centre Emergency Plan (CM9 ref. 2022/13624).
- 7. GE Healthcare Ltd LC36 submission for proposed Issue 8 of the Grove Centre Emergency Plan (CM9 ref 2022/13589).
- 8. GE Healthcare Ltd Issue 7 of the Grove Centre Emergency Plan (CM9 ref. 2020/23859).
- 9. Intervention record for witnessed demonstration of the proposed LC11 arrangements ONR-SDFW-IR-21-164 (CM9 ref. 2022/10460).
- 10. Confirmation from ONR EP&R do not wish to be involved in the assessment (CM9 ref. 2022/13592).
- 11. Confirmation from ONR Civil Nuclear Security that they have no objections to the issue of the approval. (CM9 ref. 2022/13717).
- 12. Confirmation from the Environment Agency that they have no objections to the issue of the approval. (CM9 ref. 2022/13716).
- 13. ONR-SDFW-CR-21-1061 Confirmation from GE Healthcare Limited that all forward actions identified in the LC36 paper have been completed and that the proposed monitoring arrangements have been implemented (CM9 ref. 2022/18026).