



De-/re-licensing of GE Healthcare Limited, Cardiff

Assessment of de-/re-licensing application

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EXECUTIVE SUMMARY

De-/re-licensing of GE Healthcare Limited, Cardiff Assessment of de-/re-licensing application

Permission Requested

GE Healthcare Limited (GEHC) has completed a series of decommissioning activities at its licensed site in Cardiff (the Maynard Centre), and has requested that (i) the nuclear site licence (38B) for the site is revoked, and (ii) the period of responsibility under that licence is ended (this process is known as 'delicensing'). In the same letter GEHC has applied for a replacement licence for a reduced area within its existing licensed site boundary and within the Maynard Centre site security boundary to be called the Cardiff Nuclear Licensed Site (CNLS). In its letter GEHC has requested that the replacement licence takes effect simultaneously with the revocation of the existing licence.

The replacement licence would be for the purpose of operating an "installation designed or adapted for the storage of bulk quantities of any other radioactive matter [i.e. other than fuel elements or irradiated nuclear fuel] which has been produced or irradiated in the course of the production or use of nuclear fuel". This is an installation prescribed in regulation 3(6)(c) of the Nuclear Installations Regulations 1971 [3].

Background

GEHC owns and operates two nuclear licensed sites under the Nuclear Installations Act 1965: one in England in Amersham, Buckinghamshire (the Grove Centre); and the other in Wales in Cardiff (the Maynard Centre). Until April 2010 the Maynard Centre manufactured radiochemicals for the healthcare and life sciences research markets. The principal radionuclides used, in terms of radioactivity throughputs and inventories, were tritium and carbon-14, originally produced in nuclear reactors located elsewhere.

The radioactive waste produced as a result of radiochemical manufacturing was placed into packages and transported to the waste handling complex on the site where it was either placed into drums for storage or processed for disposal off site depending on the radioactive content of the waste. Radiochemical manufacturing ceased at the Maynard Centre in 2010, and the only remaining nuclear activity is storage of radioactive matter (i.e. radioactive waste pending disposal, of which the only radionuclides are tritium and carbon-14). This is the reason why GEHC requires a replacement licence for the storage of its radioactive waste.

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

ONR carried out assessment and inspection work in consideration of this request in five main areas:

- ONR carried out radiological protection assessment of GEHC's 'Clearance Reports' to support the application for delicensing of the areas of the Maynard Centre outside the CNLS. These reports were sampled and assessed by ONR and in accordance with ONR's internal procedures, ONR commissioned independent radiological monitoring, sampling, assessment and analysis by the Centre for Radiation, Chemical & Environmental Hazards (CRCE) of Public Health England (PHE). This assisted ONR's assessment in making a judgement as to the suitability and adequacy of the Licensee's requests, and the production by ONR of a series of 'Agreement in Principle' reports stating whether each of the clearance areas was suitable 'in principle' for delicensing, i.e. whether ONR was satisfied that there is "no danger" from ionising radiation from anything on that part of the site.
- ONR carried out an organisational capability assessment. Several areas were sampled which were either potentially affected by the change, including learning from experience, safety performance indicators and the licensee's

- Nuclear Safety Committee. Sampling was carried out by requesting relevant documents and presentations for these specific areas and holding confirmation interviews during a readiness inspection.
- ONR carried out a legal requirements assessment of the de-/re-licensing process and the actions taken by the applicant to meet those requirements. The assessment focussed on the evidence provided by GEHC and assurances given by other regulators, including security of tenure, justification, prescribed activities and consultation (statutory and voluntary).
 - ONR reviewed GEHC's safety case, and carried out an intervention to form a view on the effectiveness of the licensee's system of measures in place to provide the safety function of radiation protection for its Materials Handling Centre waste drum inspection X-ray unit located within the CNLS.
 - ONR carried out a detailed two-day inspection of the licensee's readiness for relicensing, including marking of the site boundary, licence condition compliance arrangements, GEHC's post-relicensing implementation plan, licence instrument carry-over, incidents on the site, emergency arrangements, GEHC's Nuclear Safety Committee, decommissioning, organisational capability and safety performance indicators.

Matters arising from ONR's work

All issues identified during ONR's de-/re-licensing assessment and inspection work that needed to be addressed prior to the revocation of the existing licence and the granting of the replacement licence have been resolved.

Conclusions

This project assessment report concludes that:

- The delicensing criterion ('no danger') has been achieved for the buildings and areas in the Maynard Centre that GEHC wishes to be delicensed, and the licensee's period of responsibility for those buildings and areas can be ended.
- The licensee remains a suitable applicant to be granted a replacement nuclear site licence for the Cardiff Nuclear Licensed Site.
- GEHC's safety case documentation and its implementation supports the licensee's application for relicensing.
- ONR's readiness inspection of the licensee's arrangements supports its application for relicensing.
- The requirements of the Nuclear Installations Act 1965 and ONR guidance have been met for the purposes of relicensing.

Recommendation

On the basis of the application submitted by GEHC and ONR's assessment findings it is recommended that:

- ONR's Fuel Cycle & Waste Superintending Inspector approves this Project Assessment Report to confirm support for the ONR technical and regulatory arguments that justify the revocation of GEHC's existing nuclear site licence for the Maynard Centre at Cardiff, and the granting to GEHC of a new nuclear site licence for the CNLS.
- ONR's Fuel Cycle & Waste Superintending Inspector approves the release of this Project Assessment Report for publication, after redaction where appropriate.
- ONR's Chief Nuclear Inspector revokes GEHC nuclear site licence number 38B in respect of the Maynard Centre at Cardiff, gives notice to the licensee that in ONR's opinion there has ceased to be any danger from ionising radiations from anything on the part of the site being delicensed, and grants nuclear site licence number 38C in respect of the Cardiff Nuclear Licensed Site (CNLS).

LIST OF ABBREVIATIONS

ALARP	As low as reasonably practicable
BSL	Basic Safety level (in SAPs)
BSO	Basic Safety Objective (in SAPs)
CNLS	Cardiff Nuclear Licensed Site
CNS	Civil Nuclear Security (ONR)
GEHC	GE Healthcare Limited
HOW2	(Office for Nuclear Regulation) Business Management System
HSE	The Health and Safety Executive
IAEA	The International Atomic Energy Agency
NDA	Nuclear Decommissioning Authority
OBS	Organisational Baseline Statement
ONR	Office for Nuclear Regulation
PCER	Pre-construction Environment Report
PCSR	Pre-construction Safety Report
PSA	Probabilistic Safety Assessment
PSR	Preliminary Safety Report
RGP	Relevant Good Practice
SAP	Safety Assessment Principle(s)
SEMP	Safety and Environmental Management Prospectus
SFAIRP	So far as is reasonably practicable
SSC	Structure, System and Component
TAG	Technical Assessment Guide (ONR)

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1 PERMISSION REQUESTED

1. GE Healthcare Limited (GEHC) has requested in a letter to ONR's Chief Nuclear Inspector dated 17 December 2014 [1] that the nuclear site licence (38B) for its licensed site in Cardiff (the Maynard Centre) is revoked, and that the period of responsibility under that licence is ended (this process is known as 'delicensing'). In the same letter GEHC has applied for a replacement licence for a reduced area within its existing licensed site boundary and within the Maynard Centre site security boundary to be called the Cardiff Nuclear Licensed Site (CNLS). The proposed revised nuclear site boundary is illustrated on a drawing submitted on 4 November 2014 [2]. In its letter GEHC has requested that the replacement licence takes effect simultaneously with the revocation of the existing licence.
2. This replacement licence is required for the purpose of operating an "installation designed or adapted for the storage of bulk quantities of any other radioactive matter [i.e. other than fuel elements or irradiated nuclear fuel] which has been produced or irradiated in the course of the production or use of nuclear fuel". This is an installation prescribed in regulation 3(6)(c) of the Nuclear Installations Regulations 1971 [3].

2 BACKGROUND

3. GE Healthcare Limited (GEHC) owns and operates two nuclear licensed sites under the Nuclear Installations Act 1965: one in England in Amersham, Buckinghamshire (the Grove Centre); and the other in Wales in Cardiff (the Maynard Centre). GEHC has operated these licensed sites since its acquisition of Amersham PLC in April 2004 and possesses a full set of licence condition compliance arrangements for the sites including a Nuclear Safety Committee.
4. Until April 2010 the Maynard Centre manufactured radiochemicals for the healthcare and life sciences research markets. The principal radionuclides used, in terms of radioactivity throughputs and inventories, were tritium and carbon-14, originally produced in nuclear reactors located elsewhere.
5. The radioactive waste produced as a result of radiochemical manufacturing was placed into packages and transported to the waste handling complex on the site where it was either placed into drums for storage or processed for disposal off site depending on the radioactive content of the waste. Radiochemical manufacturing ceased at the Maynard Centre in 2010, and the only remaining nuclear activity is storage of radioactive matter (i.e. radioactive waste pending disposal). This is the reason why GEHC requires a licence for the storage of its radioactive waste.

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

6. Section 3 of this project assessment report describes the assessment and inspection work carried out by ONR. ONR's conclusions are described in section 5 below.

3.1 RADIOLOGICAL PROTECTION ASSESSMENT IN SUPPORT OF DELICENSING

7. GEHC made a request to ONR within its application documentation [4] that, having completed final clearance and reassurance monitoring for radioactive contamination, the part of the Maynard Centre Site outside the Cardiff Nuclear Licensed Site (CNLS) is suitable for delicensing.
8. The Licensee had previously submitted 'Clearance Reports' to support the application for delicensing of the areas of the Maynard Centre outside the CNLS. These reports have been sampled and assessed by ONR and in accordance with ONR's internal

procedures, ONR commissioned independent radiological monitoring, sampling, assessment and analysis by the Centre for Radiation, Chemical & Environmental Hazards (CRCE) of Public Health England (PHE). This assisted ONR's assessment in making a judgement as to the suitability and adequacy of the Licensee's requests, and the production by ONR of a series of 'Agreement in Principle' reports stating whether each of the clearance areas was suitable 'in principle' for delicensing.

9. Under the Nuclear Installations Act 1965 (as amended) (NIA65), ONR can agree to the exclusion of part of a site from the nuclear site licence provided it is satisfied that there is "no danger" from ionising radiation from anything on that part of the site. This process is referred to as delicensing, and ONR's judgement is made in accordance with the criterion for delicensing nuclear sites [5] which requires "a demonstration that any residual radioactivity, above background radioactivity, which remains on the site, which may or may not have arisen from licensable activities, will lead to a risk of death to an individual using the site for any reasonably foreseeable purpose, of no greater than 1 in a million per year".
10. ONR produced an assessment report on the adequacy of the Licensee's safety case covering the radiological protection aspects of the Licensee's request [6], the conclusion of which is described in section 5.1 below.

3.2 ORGANISATIONAL CAPABILITY ASSESSMENT

11. ONR assessed the organisational capability aspects of GEHC's relicensing submission [7]. Assessment was undertaken in accordance with the requirements of the ONR How2 Business Management System (BMS) guide NS-PER-GD-014 [8] and Licensing Nuclear Installations guide [9]. The ONR Safety Assessment Principles [10], together with supporting Technical Assessment Guides (TAGs) [11], were used as the basis for this assessment.
12. In considering an application for a new licence ONR takes a proportionate approach and focuses assessment effort particularly on those areas where changes to existing arrangements are taking place or which are judged to be potentially important for nuclear safety reasons.
13. This assessment focussed primarily on the main changes reflected in GEHC's submitted revisions of its Organisational Baseline Statement (OBS) [12] and Safety and Environmental Management Prospectus (SEMP) [13]. Reviews of the OBS and SEMP against ONR's Organisational Capability TAGs [11] and against Licence Condition 13 (Nuclear Safety Committee) were also carried out, to cover Organisational Capability and Nuclear Safety Committee Prerequisites for relicensing.
14. In addition, several areas were sampled which were either potentially affected by the change, or referred to by the SEMP [12] or OBS [13], including learning from experience, safety performance indicators and the licensee's Nuclear Safety Committee. Sampling was carried out by requesting relevant documents and presentations for these specific areas and holding confirmation interviews during the readiness inspection. The conclusion of ONR's assessment is described in section 5.2 below.

3.3 LEGAL REQUIREMENTS ASSESSMENT

15. ONR carried out an assessment of the legal requirements of the de-/re-licensing process and the actions taken by the applicant to meet those requirements [14]. The assessment focussed on the evidence provided by GEHC and assurances given by other regulators, including security of tenure, justification, prescribed activities and consultation (statutory and voluntary).

16. ONR carried out the process outlined in its published guidance [15]. Each of the legal prerequisites in section 4.1 of that document was considered in the assessment. The assessment was focussed primarily on evidence provided by GEHC and information supplied by relevant government departments and other regulators.
17. The assessment explains the legal process to achieve delicensing and relicensing in one step, involving revocation of the current nuclear site licence and the relicensing of part of the site. The larger area of the site will no longer be subject to a nuclear site licence and a 'no danger' statement, under section 5(15) of the Nuclear Installations Act 1965, is required from ONR to confirm that the licensee's period of responsibility under the licence for that area has ended. It was decided, in consultation with the Treasury Solicitor, that relicensing was the appropriate way to proceed in order to achieve delicensing of the decommissioned part of the site and change the prescribed activity for the remaining licensed site.

3.4 SAFETY CASE CONSIDERATIONS

18. As part of its preparations for de-/re-licensing, in August 2014 GEHC submitted to ONR its safety case for operations within the proposed new CNLS site boundary [16]. ONR reviewed the safety case and decided, on the basis of the hazard and risk presented by the operations covered within the safety case, and the outcome of a previous ONR intervention carried out in December 2013 [17] that it would not be a proportionate use of resources to carry out a formal assessment of the safety case. The December 2013 intervention had concluded that GEHC has a suitably robust containment system and structures for confining its intermediate-level radioactive waste, supported by an adequate suite of administrative controls including operating rules and instructions, maintenance, examination and testing practices, which are implemented by a competent organisation. The licensee was assessed as being compliant with the requirements of the relevant Licence Conditions, was judged to be controlling its hazards effectively and meeting its legal duty to reduce risks so far as is reasonably practicable.
19. ONR decided to carry out an additional intervention in November 2014 [18] to allow a view to be formed on the effectiveness of the licensee's system of measures in place to provide the safety function of radiation protection for its Materials Handling Centre waste drum inspection X-ray unit located within the CNLS. The licensee's compliance with the relevant licence conditions was rated as adequate to good. ONR judged that the safety system performing the radiation protection function adequately fulfilled the requirements of the safety case.
20. On the basis of its review of the safety case and the outcome of the two relevant interventions described above, ONR considers that GEHC's production of safety case documentation and implementation of safety case requirements supports the licensee's application for relicensing.

3.5 SECURITY MATTERS

21. In April 2012 GE Healthcare held a meeting with ONR (CNS) to update the relevant inspectors on its proposal to reduce the size of its nuclear licensed site, and wrote to provide detail on its intent, assumptions and agreements with reference to security expectations [19]. These proposals have since evolved and been defined in the proposed Nuclear Site Security Plan (NSSP).
22. ONR (CNS) has confirmed that on the basis that the licensee will maintain the standards and achieve the objectives defined in its proposed NSSP, the reduction in the size of the nuclear licensed site whilst maintaining the security boundary in its current position is not expected to make a difference to the security of the site.

3.6 READINESS INSPECTION

23. On 23 & 24 February 2015 ONR carried out a detailed two-day inspection of the licensee's readiness for relicensing, including marking of the site boundary, licence condition compliance arrangements, GEHC's post-relicensing implementation plan, licence instrument carry-over, incidents on the site, emergency arrangements, GEHC's Nuclear Safety Committee, decommissioning, organisational capability, nuclear assurance organisational change and safety performance indicators.

3.7 NEW SITE BOUNDARY AND MARKERS

24. The licensee proposed to retain the existing Maynard Centre site boundary fence for security purposes, and to mark the proposed new internal CNLS boundary with concrete posts, painted lines and cats' eyes as appropriate to allow movement of personnel and vehicles as necessary. The licensee proposed to establish administrative measures and security controls to restrict access to the new nuclear licensed site premises to authorised persons only.
25. ONR assessed the licensee's proposed site boundary and boundary marker arrangements at inspections on 23 February and 17 April 2015 [20, 21], and its conclusions are described in section 5.5 below.

4 MATTERS ARISING FROM ONR'S WORK

26. All issues identified during ONR's de-/re-licensing assessment and inspection work that needed to be addressed prior to the revocation of the existing licence and the granting of the replacement licence have been resolved.

5 CONCLUSIONS

5.1 CONCLUSIONS FROM RADIOLOGICAL PROTECTION ASSESSMENT IN SUPPORT OF DELICENSING

27. The Licensee initially set itself very stringent internal targets for residual radioactivity in line with the levels in International Atomic Energy Agency (IAEA) guidance [22]. Remediation was undertaken to remove areas exceeding these levels where this was reasonably practicable. Where residual radioactive contamination above these targets could not be reasonably practicably removed in the area to be delicensed, the licensee undertook a series of dose justifications to determine whether it could still meet the 'no danger' requirement.
28. In each of these cases, the Licensee has calculated individual doses resulting from the residual radioactive contamination to be less than 10 μ Sv per year. A dose to an individual of 10 μ Sv or less per year broadly equates to the 1 in a million per year 'no danger' criterion and is consistent with other legislation and international advice relating to the radiological protection of the public. The independent monitoring, sampling, analysis and assessment performed by Public Health England (PHE) on behalf of ONR supported the licensee's conclusions for each of these areas.
29. The residual levels of radioactive contamination have also been compared with the criteria for designation as radioactive material. In each case, the substances do not constitute radioactive material and will not be subject to regulatory control by Natural Resources Wales. On an ALARP basis the licensee does not propose to undertake further remediation of these materials.
30. Contamination control procedures continued to be used across the Maynard Centre site to prevent re-contamination of areas that had been cleared in principle whilst

remediation and sampling work progressed. The Licensee has now taken further confirmatory samples and has undertaken reassurance surface monitoring and presented this in its final clearance report claiming that the areas that had previously achieved Clearance in Principle and hence 'no danger' continue to be suitable for delicensing and requesting that they are removed from the licensed site.

31. From the assessment of the information provided by the Licensee and the independent work of PHE for each of the previous Clearance in Principle reports, ONR considers that there is 'no danger' from ionising radiation from the areas to be delicensed and that the buildings and areas have been cleared sufficiently and are suitable for delicensing. The assessment report recommends that the licensee's period of responsibility can be ended for those areas.

5.2 CONCLUSIONS FROM ONR'S ORGANISATIONAL CAPABILITY ASSESSMENT IN SUPPORT OF RELICENSING

32. The Licensee's application was supported by several previous submissions, inter alia the Safety and Environmental Management Prospectus (SEMP) [13] and the Organisational Baseline Statement (OBS) [12]. In the assessor's opinion [7], both the SEMP and OBS contain the information required by ONR's licensing guidance [9] and they are adequate for relicensing purposes.
33. The assessor was broadly satisfied with the claims, arguments and evidence laid down within the Licensee's submission, and recommended that in terms of its organisational capability, GE Healthcare Limited is a suitable applicant to be granted a replacement nuclear site licence for the CNLS.

5.3 CONCLUSIONS FROM LEGAL REQUIREMENTS ASSESSMENT

34. The assessor was content that GEHC had satisfied the requirements of the Nuclear Installations Act 1965 for the purposes of relicensing [14]. The assessment found that the new site licence (38C) and accompanying 'no danger' statement are acceptable and should be granted to GEHC after the satisfactory completion of the other relevant requirements.

5.3.1 SECURITY OF TENURE

35. GEHC owns the freehold of the site, having acquired it when it became the owner of Amersham International plc, the original licensee and owner of the site.

5.3.2 SITE MAP

36. GEHC produced a revised site map [2] which shows the whole of the existing licensed site, sub-divided into the area to be de-licensed and the area to be covered by the new nuclear site licence. This map meets the requirements set out in Annex 3 of *Licensing Nuclear Installations* [9]. The map will form part of the new nuclear site licence (38C) and also the 'no danger' notice which will be issued under section 5(15) of the Nuclear Installations Act 1965 for the area to be de-licensed and for which the period of responsibility will be ended.

5.3.3 JUSTIFICATION

37. A nuclear site licence has been in force for the site since 1976. Justification is not required for the reduced site and limited remaining activities as they are existing practices.

5.3.4 PRESCRIBED ACTIVITIES

38. The only activity on the proposed new site which is prescribed by the Nuclear Installations Regulations 1971 is storage of bulk quantities of radioactive matter, which is prescribed in regulation 3(6)(c). This activity is specifically included in Schedule 1 of the new nuclear site licence.

5.3.5 CONSULTATION

39. ONR is required by the Nuclear Installations Act 1965 (as amended) to consult with the appropriate environment authority before granting a nuclear site licence. Natural Resources Wales (NRW) has been consulted and it has confirmed that it does “*not believe there is any legal prejudice between the granting of a new site licence and the process we are carrying out under the Environmental Permitting Regulations 2010 (as amended)*” [23].
10. The Department for Energy and Climate Change (DECC) is not a statutory consultee. It is, however, responsible for assessing the adequacy of licensees’ cover for third-party claims under section 19(1) of the Nuclear Installations Act 1965. DECC has confirmed [24]:
- There are no matters concerning GE Healthcare Ltd pertinent to ONR’s consideration of the company’s application to re-license its site at Cardiff.
 - GE Healthcare has nuclear liability insurance arrangements in place to comply with section 19(1) of the Nuclear Installations Act 1965 for its sites.
40. Nuclear regulation is not a devolved matter. ONR is not required to consult with the Welsh Government before granting a licence to a site in Wales. The Welsh Minister for Natural Resources has been notified of the licensee’s application [25] and he has requested that the Welsh Government be informed of the outcome of ONR’s assessment [26].

5.3.6 THE BASIS FOR RELICENSING

41. This relicensing exercise is unusual in that it involves the delicensing of part of the site and relicensing of the remainder. This will allow the necessary change of prescribed activities from the production from nuclear matter of isotopes for use for medical or scientific purposes to the storage of bulk quantities of radioactive matter. No previously unlicensed land is involved. The existing licence will be revoked, and a new nuclear site licence will be granted for the remaining part of the site. A ‘no danger’ notice will be issued by ONR under section 5(15) of the Nuclear Installations Act 1965 for the de-licensed part of the site. The Treasury Solicitor’s Department has advised that this course of action is appropriate [27].

5.3.7 TRANSFER OF EXTANT LICENCE INSTRUMENTS

42. The licensee has identified three approvals issued under the existing licence (for the terms of reference of GEHC’s Nuclear Safety Committee, for arrangements for the consideration of urgent safety proposals, and for the emergency plan) which should be brought forward in Schedule 3 of the new nuclear site licence. In addition, a specification relating to high-activity sealed sources will be carried forward in paragraph 5 of the new nuclear site licence.

5.4 CONCLUSIONS FROM THE READINESS INSPECTION IN SUPPORT OF RELICENSING

43. ONR formed a judgement in each of the areas it inspected against, and all observations were that GEHC's performance had been adequate or good [20]. A small number of tasks remained to be completed, most notably the installation of permanent marker posts for the new site internal boundary, but in ONR's opinion none of these were likely to prevent the overall de-/re-licensing project from being completed to ONR's satisfaction. In ONR's view, GEHC had made significant progress to reach this stage, and ONR was content with the apparently full and open communications and interactions experienced with GEHC staff.

5.4.1 READINESS INSPECTION: LICENCE CONDITION COMPLIANCE ARRANGEMENTS

44. GEHC provided a summary of its arrangements for nuclear site licence condition compliance, and for each condition ONR sought confirmation that appropriate arrangements or procedures were in place. On the basis of the sampling carried out, and evidence gained at previous inspections, GEHC satisfied ONR that appropriate arrangements were in place for all licence conditions.

5.4.2 READINESS INSPECTION: POST-RELICENSING IMPLEMENTATION PLAN

45. ONR reviewed GEHC's post-relicensing implementation plan, focusing on boundary marking, record keeping, staff training, revised emergency arrangements and revised security arrangements (in relation to their effect on nuclear safety). ONR was satisfied that GEHC's plan was adequate for the post-relicensing phase.

5.4.3 READINESS INSPECTION: CLOSE-OUT OF ITEMS ON PREVIOUS FORWARD ACTION PLANS

46. ONR went through each item in the forward action plans from GEHC's Radioactive Waste Management Case (RWMC), periodic review of safety and operational safety case. ONR was satisfied that all items had been completed, closed out or at a satisfactory stage of progress.

5.4.4 READINESS INSPECTION: EMERGENCY ARRANGEMENTS

47. ONR followed up on the issues requiring close-out from ONR's review of GEHC's emergency plan [28] (refresher training frequencies, emergency plan to identify locations of emergency facilities, and include references to the manual detailing the required manning levels). GEHC wrote to ONR on 19 March 2015 [29] to confirm that it had closed out these issues, and ONR acknowledged the issues had been closed out.

5.4.5 READINESS INSPECTION: NUCLEAR SAFETY COMMITTEE

48. ONR judged current LC13 arrangements adequate [20] and agreed to carry the licence instruments over in due course. GEHC provided adequate evidence that its Nuclear Safety Committee is an integral part of its nuclear safety governance arrangements. In addition the Nuclear Safety Committee's membership is appropriate to the lifecycle phase of the installation.

5.4.6 READINESS INSPECTION: DECOMMISSIONING

49. ONR considered GEHC's position against the requirements of the relevant Decommissioning Safety Assessment Principles [10]. ONR was satisfied that no

action was required in relation to DC.1 (Design and operation) as the facility had been constructed some time before this regulatory requirement can come into place. We asked GEHC to propose to ONR ahead of the relicensing date a plan for preparing a decommissioning strategy for the installation (DC.2) and for identifying records that would be needed for decommissioning (DC.6). GEHC wrote to ONR on 5 March 2015 to close out these actions [30].

5.5 CONCLUSIONS ON NEW SITE BOUNDARY AND MARKERS

50. ONR was satisfied that its inspection of the licensee's site boundary fence [20] and arrangements for access were adequate for the purposes of Licence Condition 2(1) (prevention of unauthorised persons from entering the site). At its inspection of the new site boundary markers [21], ONR considered them to be in the correct locations and positions in line with the plans contained within GEHC's relicensing application, and to be a proportionate and appropriate means of marking the boundary in compliance with Licence Condition 2(4).

5.6 OVERALL CONCLUSIONS

51. This project assessment report concludes that:

- The delicensing criterion ('no danger') has been achieved for the buildings and areas in the Maynard Centre that GEHC wishes to be delicensed, and the licensee's period of responsibility for those buildings and areas can be ended.
- The licensee remains a suitable applicant to be granted a replacement nuclear site licence for the Cardiff Nuclear Licensed Site.
- GEHC's safety case documentation and its implementation supports the licensee's application for relicensing.
- ONR's readiness inspection of the licensee's arrangements supports its application for relicensing.
- The requirements of the Nuclear Installations Act 1965 and ONR guidance have been met for the purposes of relicensing.

6 RECOMMENDATIONS

52. On the basis of the application submitted by GEHC and the findings set out in section 5 above it is recommended that:

- ONR's Fuel Cycle & Waste Superintending Inspector approves this Project Assessment Report to confirm support for the ONR technical and regulatory arguments that justify the revocation of GEHC's existing nuclear site licence for the Maynard Centre at Cardiff, and the granting to GEHC of a new nuclear site licence for the CNLS.
- ONR's Fuel Cycle & Waste Superintending Inspector approves the release of this Project Assessment Report for publication, after redaction where appropriate.
- ONR's Chief Nuclear Inspector revokes GEHC nuclear site licence number 38B in respect of the Maynard Centre at Cardiff, gives notice to the licensee that in ONR's opinion there has ceased to be any danger from ionising radiations from anything on the part of the site being delicensed, and grants nuclear site licence number 38C in respect of the Cardiff Nuclear Licensed Site (CNLS).

7 REFERENCES

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