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**Approval of Revisions to the Approved Emergency Arrangements under Licence
Condition 11(3)**

**Site Licence Condition 11 – Emergency Arrangements
Request for Approval of Changes to the Nuclear Site Emergency Plan – Topic Manual 019**

Project Assessment Report ONR-OFD-PAR-20-024
Revision 0
27 July 2021

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EXECUTIVE SUMMARY

Title

Site Licence Condition 11 – Emergency Arrangements
Request for Approval of Changes to the Nuclear Site Emergency Plan – Topic Manual 019.

Permission Requested

This project assessment report (PAR) is for regulatory approval of amendments to the emergency arrangements of nuclear site licence 42C, Devonshire Dock Complex (DDC). Approval from the Office for Nuclear Regulation (ONR) will be given under licence condition (LC) 11 (3) as this is an amendment to the extant, approved arrangements.

Background

Licence condition 11, Emergency Arrangements, requires a 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, BAE SYSTEMS Marine Limited (the licensee) produced the document Topic Manual 019, Nuclear Site Emergency Plan, Issue 1 08.10.2018 Revision 0 08.10.2018 (Draft B for Approval) which was approved by the ONR by issuance of licence instrument 519 on 2 July 2019 to reflect changes to the site boundary, relevant good practice and administrative arrangements.

The emergency plan has subsequently been updated to reflect the revised security arrangements and Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPP19). The licensee has also included extra content based on changes to security arrangements and learning from the COVID-19 pandemic. The licensee is seeking ONR approval for the revised emergency arrangements.

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

I have assessed the impact of the changes to the emergency arrangements. I have confirmed that the revised arrangements relate to REPP19 and changes to security arrangements. This includes a change to the accident scenarios covered by the emergency arrangements. My assessment does not cover any of the previous approval assessment sample as I deemed that this had been adequately covered.

I discussed the updated emergency arrangements with the ONR Emergency Preparedness and Response (EP&R) inspector and their Defence Nuclear Safety Regulator (DNSR) counterpart and they raised queries relating to on and off-site emergency arrangements. The assessment findings from both ONR and DNSR were communicated to the licensee with the key findings relating to:

- Emergency response to a criticality
- Inclusion of specific REPP19 requirements or consistency with updated REPP19 terminology
- Clarification of use and location of emergency response facilities.

The licensee updated the document to address the identified issues and both DNSR and ONR have reviewed the changes. Both ONR and DNSR were broadly content with the updated arrangements but identified a number of unresolved issues that would need to be addressed in the next revision of the report. The licensee has agreed to provide a further revision of the document to address the remaining issues by the end of the year. The phased approach will permit the licensee to test its emergency arrangements in a Level 1 exercise later this year and then ensure that all issues identified are addressed prior to the next major nuclear activity

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on the Barrow site. I have also discussed the changes with the Environment Agency inspector who is content with the proposed emergency plan.

I have confirmed that the changes have been subject to the licensee's due process and have been considered by both the Nuclear Safety Committee and Site Emergency Planning Committee.

I have sampled the following aspects of the Barrow Nuclear Emergency Orders (BNEO) where the emergency plan makes specific reference to the more detailed arrangements therein, for the purpose of identifying any inconsistencies:

- Identification of roles and responsibilities relating to preparation for and duties during a site emergency
- Substantiation of communication systems used to support emergency arrangements
- Alternative requirements in the event of a severe accident.

I found the BNEO was consistent with the overarching emergency plan for the sampled aspects although I note that there have been changes to some of the organisational and facility titles which should be fed through to the supporting documents.

Matters arising from ONR's work

There are no regulatory issues or concerns arising from this assessment. The changes are administrative in nature to reflect the revised security arrangements and REPP19. Where consequential nuclear safety impact on the emergency arrangements has been identified, the emergency plan has been revised to address this.

Conclusions

This report presents my assessment findings of the revised emergency arrangements submitted by BAE SYSTEMS Marine Limited for approval under LC11(3). To conclude, I am satisfied that the revised emergency arrangements satisfy the requirements of LC11.

Recommendation

This project assessment report recommends that Approval is given under LC11(3) for the revised Topic Manual 019, Nuclear Site Emergency Plan, Issue 2.06.04.2021 Revision 0 and that licence instrument 522 be signed by the Deputy Chief Inspector.

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LIST OF ABBREVIATIONS

BNEO	Barrow Nuclear Emergency Orders (BAE SYSTEMS Marine Limited)
DCI	Deputy Chief Inspector (ONR)
DDC	Devonshire Dock Complex (BAE SYSTEMS Marine Limited)
DNSR	Defence Nuclear Safety Regulator
EP&R	Emergency Preparedness and Response
HIRE	Hazard Identification and Risk Evaluation (BAE SYSTEMS Marine Limited)
LC	Licence Condition
LI	Licence Instrument
NSC	Nuclear Safety Committee (BAE SYSTEMS Marine Limited)
NSEP	Nuclear Site Emergency Plan
ONR	Office for Nuclear Regulation
PAR	Project Assessment Report (ONR)
REPP19	Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPP19)
SAP	Safety Assessment Principle(s) (ONR)
SEPC	Site Emergency Planning Committee (BAE SYSTEMS Marine Limited)

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1 PERMISSION REQUESTED

1. BAE SYSTEMS Marine Limited (the licensee) holds nuclear site licence number 42C for the Devonshire Dock Complex (DDC), Barrow-in-Furness.
2. The licensee has requested the Office for Nuclear Regulation's (ONR's) approval of changes to the Nuclear Site Emergency Plan – Topic Manual 019 Revised Submission under Licence Condition (LC) 11, Emergency Arrangements. The licensee submitted updated arrangements to the ONR on 4 May 2021 [1], which are detailed in Topic Manual 019 [2]. ONR has previously approved the licensee's operator emergency plan under LC11(3) requirements. As such, should any part of the licensee's arrangements be revised the arrangements require approval by ONR by issue of a licence instrument, prior to their implementation.

2 BACKGROUND

3. LC11 requires licensees to make and implement adequate arrangements for dealing with any accident or emergency arising on the site and their effects. The licensee produced the document titled "Nuclear Site Emergency Plan" [3] to comply with this requirement, which was approved previously by the ONR via licence instrument (LI) 519 on 2 July 2019 [4].
4. The licensee has updated its emergency arrangements in Topic Manual 019 [2] to reflect the Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPiR19) [5]. The licensee has also updated the emergency plan to reflect changes in security arrangements and related learning gained during the COVID-19 pandemic.
5. The ONR's approval will enable the licensee to update supporting documentation that provides details of how the plan should be implemented.

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

6. The licensee submitted a request for re-approval of its Nuclear Site Emergency Plan (NSEP) on 7 May 2020. [23]. The key revisions being proposed by the licensee to its Emergency Plan were in the following areas:
 - Changes in the security arrangements by addition of Ministry of Defence (MoD) Police to the Barrow Site Security team
 - Changes in the emergency response as a result of the introduction of REPPiR19 [5].
7. In order to determine the scope and sample for my assessment, I met with the licensee to discuss the changes [8]. During this meeting I confirmed with the licensee that the changes in Topic Manual 019 related only to those changes detailed above. Subsequent to this meeting, the licensee undertook to update the Emergency Plan with relevant learning acquired in response to the COVID-19 pandemic which was issued to ONR on 25 November 2020 [24].
8. As part of my assessment, I requested a review of the proposed changes by an ONR inspector within the Emergency Preparedness and Response (EP&R) specialism. Their assessment [6] identified a few gaps relating to the demonstration of compliance with REPPiR19 [5].
9. To form my judgement on the adequacy of the emergency plan submitted, I targeted my assessment sample to look at the changes to the plan as detailed above. My

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assessment does not cover any of the previous approval [4] assessment sample [25] as I deemed that this had been adequately covered.

10. There are no new hazards being introduced to the site at this time that would change the extant Hazard Identification and Risk Evaluation. However, due to additional requirements identified in REPP19 [5], the licensee has advised Cumbria County Council of an additional accident scenario which will be addressed in the Off-Site Emergency Plan [12]. Nevertheless, the reference accident scenario postulated for the Devonshire Dock Complex (DDC) licensed site remains valid.
11. I have confirmed that the changes have been subject to the licensee's due process (as detailed in [1]) and confirmed in [26]. Minutes from the Nuclear Safety Committee and the Site Emergency Planning Committee have been provided and [9] and [10] confirm that the document was reviewed by these committees with no specific changes identified.

3.1 EP&R ASSESSMENT

12. Topic Manual 019 [2] has been assessed by an ONR EP&R Specialist Inspector [6]. The assessment identified a number of requirements identified in REPP19 [5] which should be reflected in the Emergency Plan.
13. The updated emergency arrangements have been disseminated to other external stakeholders for feedback including the Defence Nuclear Safety Regulator (DNSR), Environment Agency and local authority [12] and [28]. I discussed the updated emergency arrangements with my DNSR counterpart and they raised queries relating to on and off-site emergency arrangements [29]. The assessment findings from both ONR and DNSR were communicated to the licensee [13].
14. The key ONR findings related to:
 - Emergency response to a site criticality
 - Inclusion of specific REPP19 requirements or consistency with updated REPP19 terminology
 - Clarification of use and location of emergency response facilities.
15. ONR and DNSR held a meeting with the licensee to discuss their queries [14] and the licensee committed to revising the NSEP to address key concerns prior to the planned emergency exercise (to be held during the autumn 2021) and to re-write the NSEP to reflect the broader comments from ONR and DNSR (before the end of 2021) [27]. The phased approach will allow a partial update of the NSEP prior to the next Level 1 emergency exercise and then a re-write prior to the next major nuclear activity on the Barrow site. The licensee highlighted additional areas which might need to be included within the NSEP and agreed to determine whether changes to the NSEP were, therefore, required [14]. The revised NSEP was received [2] and both DNSR and ONR have reviewed the changes. The DNSR inspector confirmed that they were broadly content with the updated arrangements but identified a few unresolved issues that would need to be addressed in the next revision of the report [11]. The ONR EP&R Inspector confirmed that they were also generally content with the updated arrangements but highlighted a number of issues (addressed in the covering letter [20]) which would need to be included within the next version of the NSEP. The Environment Agency inspector confirmed that they were content with the NSEP [15].

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3.2 ASSESSMENT OF GENERAL CHANGES

16. My sample concentrated on those areas of the NSEP which have been changed as the previous approval involved a significant amendment to the document which underwent significant assessment within ONR. I, therefore, deemed that the previous assessment sample had been adequately covered. I have sampled the following aspects of the BNEO where Topic Manual 019 [2] makes specific reference to the more detailed arrangements therein, for the purpose of identifying any inconsistencies:
- Identification of roles and responsibilities relating to preparation for [16] and duties during a site emergency [17, 18, 19]
 - Substantiation of communication systems used to support emergency arrangements [19]
 - Alternative requirements in the event of a severe accident [21]
17. I found the BNEO was consistent with the overarching emergency plan for the sampled aspects, although I note that there have been changes to some of the organisational and facility titles which should be fed through to the supporting documents.
18. Overall, I am content that the revised emergency arrangements in Topic Manual 019 [2] fulfil the requirements of LC11 based on my and the EP&R assessments and discussions. I have assessed the changes to the emergency arrangements in Topic Manual 019 [2] and consider the documentation consistent with ONR's expectations in the Safety Assessment Principles (SAPs) (e.g. AM.1) and Inspection Guidance NS-INSP-GD-011 [7]. I expect the Licensee to undertake a re-write of the NSEP before the end of the year (prior to the next major nuclear activity on the Barrow site) as they have committed to do [27].

4 MATTERS ARISING FROM ONR'S WORK

19. There are no regulatory issues or concerns resulting from this assessment. My sampling and associated discussions show that the changes to the document directly relate to the addition of MoD police to the site security personnel and to the implementation of requirements derived from REPP19 [5]. Where consequential nuclear safety impact on the emergency arrangements has been identified, the NSEP has been revised to address this. Based on my review and discussions with the ONR nominated site inspector, there are no additional operations (or changes to those operations) on the site since the previous arrangements were approved.
20. Topic Manual 019 [2] is underpinned by the BNEO [22]. I discussed update of the BNEO with the Licensee, who confirmed that the BNEO will be re-issued following ONR approval of the updated emergency arrangements [14]. This re-issuing will be in accordance with the Licensee's due process.

5 CONCLUSIONS

21. This report presents the findings of my assessment of the revised emergency arrangements in [2] submitted by BAE SYSTEMS Marine Limited for approval. I am broadly content with the updated arrangements but have highlighted a number of issues (addressed in the covering letter [20]) which need to be included within the next version of the NSEP.

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22. To conclude, I am satisfied that the revised emergency arrangements fulfil the requirements of LC11.

6 RECOMMENDATIONS

23. This project assessment report recommends that approval is given under LC11(3) for the revised BAE SYSTEMS Marine Limited's emergency arrangements for nuclear site licence number 42C, Devonshire Dock Complex, detailed in Topic Manual 019 [2] and that licence instrument 522 be signed by the Deputy Chief Inspector (DCI).

7 REFERENCES

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21. BAE SYSTEMS Marine Limited, Topic Manual 020 Section 13, Severe Accident – Emergency Arrangements, Issue 2 02.12.2019, CM9 2021/49261
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