



## Hinkley Point A Emergency Arrangements

### Request for ONR Approval under Licence Condition 11 (3) of Hinkley Point A Emergency Arrangements

Project Assessment Report ONR-SDFW-PAR-18-003  
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## EXECUTIVE SUMMARY

This report presents the findings of the Office for Nuclear Regulation's (ONR) consideration of Magnox Limited's (MxL) request for an Approval to amend the Hinkley Point A (HPA) emergency plan.

### Permission Requested

MxL, the licensee for the Hinkley Point A site, has written to ONR requesting Approval under Licence Condition 11(3), emergency arrangements, for amendment to the site's emergency plan.

### Background

Licence Condition 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. In order to comply with this requirement the licensee issues accident and emergency arrangements.

ONR has previously approved the HPA emergency plan using its powers under Licence Condition 11(2). To comply with Licence Condition 11(3) the licensee needs to obtain the ONR's Approval for alteration or amendment to previously approved arrangements.

Hinkley Point A ceased power generation in 2000 and was declared to be fuel free in 2010, thereby removing most of the nuclear hazard from the site. The site is now being decommissioned.

MxL is requesting ONR's Approval to implement operational shift transition at HPA. It is proposing to cease shift operations on site, which involves the complete withdrawal of shift personnel during silent hours (limited operations on site). Continuous on-site safety and security will be provided by an enhanced security guard presence during silent hours. Overall, MxL judges that the proposal has low radiological consequences by virtue of the remaining low nuclear hazard on site.

### Assessment and inspection work carried out by the Office for Nuclear Regulation 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 Licence Condition 11.

### Matters arising from the Office for Nuclear Regulation's work

There are no unresolved issues remaining from ONR's assessment and inspection work.

### Conclusions

In my opinion the licensee's proposed alteration or amendment of the HPA emergency arrangements is adequate to satisfy the requirements of Licence Condition 11. In formulating my opinion I have taken into account the following:

- ONR's inspections and discussions with the licensee on the proposed new arrangements, which culminated in supporting implementation;
- ONR's satisfaction with the licensee's submissions such that the Radiation (Emergency Preparedness and Public Information) Regulations 2001 (REPPiR) off-site emergency area for the purposes of public protection no longer apply;
- The proposal has followed the licensee's due process and is supported by its Nuclear Safety Committee;

- A demonstration exercise was judged to be adequate by MxL's internal oversight team;
- A positive outcome from a MxL executive-led readiness review; and
- Confirmation that additional nuclear safety control measures have been adequately implemented.

## **Recommendations**

I recommend that a person with delegated authority in ONR:

- Accepts the regulatory judgements in this report that justify issuing Licence Instrument 511, Approval;
- Approves this report for publication after redaction as appropriate; and
- Signs Licence Instrument 511 giving effect to ONR's Approval of the proposed amendments to the Hinkley Point A emergency plan under Licence Condition 11(3).

## LIST OF ABBREVIATIONS

HIRE	Hazard Identification and Risk Evaluation
HPtA	Hinkley Point A
LC	Licence Condition
MxL	Magnox Limited
ONR	Office for Nuclear Regulation
OST	Operational Shift Transition
REPPiR	Radiation (Emergency Preparedness and Public Information) Regulations
RoA	Report of Assessment

## TABLE OF CONTENTS

1	PERMISSION REQUESTED .....	7
2	BACKGROUND .....	7
3	ASSESSMENT AND INSPECTION WORK CARRIED OUT BY ONR IN CONSIDERATION OF THIS REQUEST .....	8
4	MATTERS ARISING FROM ONR'S WORK.....	9
5	CONCLUSIONS .....	9
6	RECOMMENDATIONS.....	9
7	REFERENCES .....	10

## 1 PERMISSION REQUESTED

1. Magnox Limited (MxL), the licensee for Hinkley Point A (HPA) power station, has written to the Office for Nuclear Regulation (ONR) requesting Approval under Licence Condition (LC) 11 (3) (Ref. 1), emergency arrangements, for alteration or amendment to the site's approved accident and emergency arrangements. This report presents the findings of the ONR's consideration of MxL'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. In order to comply with this requirement the licensee has issued an accident and emergency plan.
3. ONR has previously approved the HPA accident and emergency arrangements using primary powers under LC 11(3) (Ref. 2). To comply with LC 11(3) the licensee needs to obtain ONR's Approval for alteration or amendment to the approved arrangements.
4. HPtA site ceased power generation in 2000 and was declared to be fuel free in 2010, thereby removing most of the nuclear hazard from site. MxL is now in the process of decommissioning the site.
5. The Radiation (Emergency Preparedness and Public Information) Regulations 2001 (REPPiR) places duties on MxL that include having an operator's emergency plan and off-site emergency plan. In 2013, MxL submitted to ONR a combined Report of Assessment (RoA) and Hazard Identification and Risk Evaluation (HIRE) in accordance with REPPiR (Ref.3).
6. The RoA/HIRE submission considered that there had been a substantial reduction in both hazard and risk of a radiation emergency at site due to the defuelled status of the reactors with all spent fuel removed from site. MxL concluded that it was not reasonably foreseeable that any fault at HPA could lead to a radiation emergency. It therefore considered that the current emergency planning zone, based upon a 3.5 km radius, is sufficient, but arguably excessive. ONR's assessment of the RoA and HIRE submissions for HPA concluded that it was content with MxL's judgment (Ref. 4).
7. In June 2015, ONR wrote to the HPA Site Director (Ref.5) in respect of the REPPiR off-site emergency planning and prior information area. The letter included notification that the REPPiR off-site emergency planning area was no longer required. Also, MxL was no longer required under the regulations to specify an area where it must provide prior information to the public.
8. To reflect the reduced radiation hazard at HPA site, in 2016 MxL requested, and obtained, ONR Approval (Ref. 2) to alter or amend its approved emergency arrangements. It replaced the site emergency plan with the HPA accident and emergency arrangements. The new plan was supported by a revised site emergency handbook.
9. In December 2017 MxL wrote to ONR requesting Approval under LC 11(3) for the alteration or amendment to the site's accident and emergency arrangements. MxL considers that the HPtA decommissioning programme is not a 24/7 operation and the site has a low hazard profile. It is proposing, therefore, to introduce what it considers to be more proportionate manning arrangements during silent hours (when no work is being undertaken on site), known as operational shift transition (OST).
10. MxL are proposing to cease shift operations at HPA, which will entail completely withdrawing shift operations personnel and contractors during silent hours. Emergency response during silent hours will be provided by the continuous, on-site

security guard presence. MxL has also undertaken modification work to support the proposal, including updating and modifying site alarm systems and enhancements to the site security system. The proposal has followed MxL's due process, which included oversight from its Internal Regulator and consideration by the Nuclear Safety Committee (Ref. 6 & Ref. 7).

11. MxL has undertaken a programme of desktop and small scale exercises to test and prove its new arrangements. This culminated in March 2018 with a practical demonstration of the new arrangements that was witnessed by key MxL personnel, including internal regulators. Overall, MxL judged that the exercise had adequately demonstrated its proposed arrangements (Ref. 8).
12. Following the demonstration exercise a MxL executive-led readiness review was conducted on 16 April 2018 (Ref. 9) led by MxL's Deputy Managing Director and Chief Nuclear Officer. This review concluded that the OST project can proceed to implementation subject to the completion of relevant pre-transition actions detailed with the OST project quality plan.

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

13. I have considered MxL's request for Approval in my role as the ONR Nominated Site Inspector for HPA site. I have followed ONR procedures for delivering a permissioning project, as detailed in HOW2 (Ref. 10).
14. OST has been implemented adequately at a number of other MxL sites; this is not a new or novel activity and MxL has drawn upon this operating experience throughout its planning and implementation phases. In February 2018 I observed an out-of-hours training exercise of the new arrangements, carried out with the participation of the Fire Service. Whilst no formal regulatory judgement was required, I noted the following in my report (Ref. 11): "This was a well-run training exercise and the conduct of the security team in coordinating the response was effective".
15. MxL has assigned a categorisation of 'three', low radiological consequences, to the modification proposal which documents this change. ONR does not require MxL to notify it, through LC compliance arrangements, of such low category modifications however the proposal requires alteration or amendment to approved emergency arrangements which necessitates issuing Licence Instrument. I examined this category 3 modification (Ref. 12) during a LC 22 inspection in February 2018 (Ref. 13) and found that it adequately addressed the requirements of MxL's arrangements which I judged to be adequate. I found that the modification documentation contained an examination of the MxL's organisational learning database to identify learning from events across the company. I also found that the nuclear safety assessment was systematically applied and considered the implications of OST on each of the faults identified in the live safety case summary document: this assessment resulted in identification of two additional control measures which I have since confirmed have been implemented (Ref. 14). I examined two associated modifications which controlled changes to the alarm system and the inclusion of an alarm panel in the security gatehouse (I had the opportunity to observe the use of the alarm panel during an out-of-hours training exercise the following day): I found these modifications to be appropriately categorised and controlled.
16. MxL has also undertaken an assessment of the organisational change (Ref. 15) in accordance with its arrangements made under Licence Condition 36. I have reviewed this assessment and found that it broadly meets the advice as set out in ONR's Organisational Capability Technical Assessment Guide.

17. I examined MxL's internal oversight team assessment report of the demonstration exercise (Ref. 8) which concluded that the exercise provided an adequate demonstration of the site's proposed arrangements. I also examined the MxL executive readiness review which concluded that OST can proceed to implementation.

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

18. There are no unresolved issues remaining from ONR's assessment and inspection work.

#### **5 CONCLUSIONS**

19. In my opinion the licensee's proposed alteration or amendment of the HPA emergency arrangements is adequate to satisfy the requirements of LC11. In reaching my opinion I have taken into account of the following:
- ONR's interventions with site staff on the proposed new arrangements, which culminated in it supporting implementation;
  - ONR's satisfaction with the licensee's submissions such that the REPPiR off-site emergency area for the purposes of public protection no longer apply;
  - The proposal has followed the licensee's due process and is supported by its Nuclear Safety Committee;
  - A demonstration exercise judged to be adequate by MxL's internal oversight team;
  - A positive outcome from a MxL executive-led readiness review; and
  - Confirmation that additional nuclear safety control measures have been adequately implemented.

#### **6 RECOMMENDATIONS**

20. I recommend that a person with delegated authority within ONR:
- Accepts the regulatory judgements in this report that justify issuing Licence Instrument 511, an Approval;
  - Approves this report for publication after redaction as appropriate;
  - Signs Licence Instrument 511 giving effect to the Office for Nuclear Regulation's Approval of the proposed amendments to the Hinkley Point A emergency plan under Licence Condition 11(3).

## 7 REFERENCES

1. Request letter HPA 60135R (2017/466795)
2. Licence Instrument 508, Approval (2016/129733)
3. Hinkley Point A RoA / HIRE submission (2013/51603)
4. ONR-COP-PAR-14-008. Determination of the requirement for off-site emergency planning and prior information areas for Hinkley Point A (2014/469053)
5. ONR-EPR-15-136. ONR letter to Hinkley Point A on REPPIR (2015/207609)
6. NSC Supporting Paper (2017/293653)
7. NSC Minutes (2017/203731)
8. Hinkley Point A OST contingency arrangements demonstration – Internal Oversight Team Assessment Report (2018/129318)
9. Magnox Executive Readiness Review Statement (2018/130253)
10. ONR HOW2 Guide - Purpose and Scope of Permissioning - NS-PER-GD-014 Rev. 4
11. ONR Contact Record (2018/71811)
12. Category 3 Modification (2018/129556)
13. LC22 Compliance Inspection (2018/77616)
14. Email confirming implementation of control measures (2018/130253)
15. LC36 Baseline Organisational Change Management Form (2018/129557)