



**Winfrith Emergency Arrangements  
Approval of Revised Winfrith Site Emergency Plan**

Project Assessment Report ONR-SDFW-PAR-16-008  
Revision 0  
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## EXECUTIVE SUMMARY

### Approval of Revised Winfrith Emergency Arrangements

#### Permission Requested

Magnox Ltd (the licensee) has written to the Office for Nuclear Regulation (ONR) requesting approval of a revised Winfrith site emergency plan.

#### Background

As required by its site licence arrangements, the licensee has undertaken a three yearly review of its emergency arrangements at Winfrith. The current emergency plan includes the Winfrith Response Service that is provided by the licensee's staff. This review it has concluded that the services provided by the Winfrith Response Service to the emergency plan can be transferred to existing resources identified in the emergency plan and the Winfrith Response Service disbanded.

In April 2015, Winfrith was relicensed to Magnox Ltd. Since relicensing, Magnox Ltd has started to introduce consistent processes and working arrangements across its twelve sites. The licensee has taken this opportunity to re-write its emergency plan into the Magnox generic format.

As required by LC11 (3), the licensee has written to ONR to request approval of its revised emergency arrangements that are set out in the emergency plan.

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

I have assessed the differences between the proposed new plan and the existing approved plan. The principal change is to the licensee's emergency plan is the withdrawal of the Winfrith Response Service and transfer of its responsibilities to existing resources identified in the emergency plan.

The licensee demonstrated the aspects of the proposed emergency arrangements that it proposes to change to ONR's satisfaction by staging a demonstration exercise.

I have also confirmed that the licensee's proposals meet the requirements of ONR's guidance.

#### Matters arising from ONR's work

There are no matters arising from this project assessment report.

#### Conclusions

I am satisfied that the revised emergency plan introduces only one material change to the extant arrangements, the withdrawal of the Winfrith Response Service and transfer of its responsibilities to other available site emergency resources. The licensee has also identified adequate resources within its emergency organisation to take on the remaining Winfrith Response Service duties

The licensee successfully demonstrated the aspects of the proposed emergency arrangements that it proposes to change to ONR in April 2016.

Finally, I consider that the proposed emergency plan will provide suitable and sufficient detail to enable the licensee to safely deal with an on-site emergency should the need arise.

## **Recommendation**

I recommend that licence instrument number 504 be issued to approve the revised Magnox Limited Winfrith emergency plan. This licence instrument will also withdraw approval of the existing emergency plan.

## LIST OF ABBREVIATIONS

ALARP	As low as reasonably practicable
BSL	Basic Safety level (in SAPs)
BSO	Basic Safety Objective (in SAPs)
CNS	Civil Nuclear Security (ONR)
HOW2	(Office for Nuclear Regulation) Business Management System
HSE	The Health and Safety Executive
IAEA	The International Atomic Energy Agency
MxL	Magnox Limited
NDA	Nuclear Decommissioning Authority
NOFA	Nuclear Occupational First Aider
ONR	Office for Nuclear Regulation
PCER	Pre-construction Environment Report
PCSR	Pre-construction Safety Report
PSA	Probabilistic Safety Analysis
PSR	Preliminary Safety Report
RGP	Relevant Good Practice
SAP	Safety Assessment Principle(s)
SFAIRP	So far as is reasonably practicable
SSC	Structure, System and Component
TIG	Technical Inspection Guide (ONR)
TAG	Technical Assessment Guide (ONR)
WRS	Winfrith Response Service

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## **1 PERMISSION REQUESTED**

1. Magnox Ltd (The Licensee) has requested ONR's 'Agreement' under Licence Condition 11(3) for its proposed changes to the Winfrith site emergency plan [Ref 1]. This revision is documented in issue 5 of the plan [Ref 2].
2. The licensee currently has an emergency plan [Ref 3], which is at issue 4. Licence Condition (LC) 11(3) requires the licensee (in this case, Magnox Limited) to ensure that no alteration or amendment is made to an approved emergency plan unless the Office for Nuclear Regulation (ONR) approves that alteration or amendment. This report presents the basis for ONR approval of the licensee's proposed new arrangements.
3. The proposed changes to the plan have been through the licensee's due process and have been considered by its nuclear safety committee [Ref 4].

## **2 BACKGROUND**

4. As required by its arrangements, the licensee has undertaken a three yearly review of its emergency arrangements at Winfrith. From this review it has concluded that the services provided by the Winfrith Response Service (WRS) to the emergency plan can be transferred to existing resources on site and WRS disbanded. WRS is currently employed to provide a first response which includes medical first aid anywhere on site until the causality can be handed over to South West Ambulance Service.
5. In compliance with its arrangements for Licence Condition (LC) 36, the licensee has justified organisational changes whereby the services and duties currently delivered by the WRS can be provided through alternative arrangements so that WRS can be disbanded [Ref 5 and 6]. In order to fully implement this organisational change, the licensee needs to revise its emergency plan to re-assign WRS's role within the site's incident response capability.
6. In April 2015, Winfrith was relicensed to Magnox Ltd (MxL) [Ref 7]. Since relicensing, MxL has started to introduce consistent processes and working arrangements across its twelve sites. The licensee has taken this opportunity to re-write its emergency plan into the Magnox generic format.
7. As required by LC11 (3), the licensee has written to ONR to request approval of its revised emergency plan [Ref 1].

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

8. In my assessment of the proposed emergency plan I have considered the differences between the extant [Ref 3] and proposed plans [Ref 2].
9. The licensee demonstrated the aspects of the proposed emergency arrangements that it proposes to change to ONR's satisfaction by staging a demonstration exercise.
10. I have confirmed that the proposed plan is compliant with the requirements of our own guidance [Ref 8] [Ref 9]. I have also considered the licensee's performance in its most recent Level 1 emergency exercise [Ref 8].

### **3.1 KEY CHANGES TO EXISTING ARRANGEMENTS**

11. The principal change to the licensee's emergency plan is the withdrawal of the WRS. WRS provides a first-response to investigate designated alarms on the Site. WRS is competent and equipped to:

- Evaluate incidents and determine likely plan of action and resources required;
  - Interact with external emergency services;
  - Provide medical first-aid response anywhere on site;
  - Deploy control measures and tactics within their capability to prevent escalation of the incident or medical treatments; and
  - Making declaration for First and Amber Alerts.
12. I consider the most significant change to be the provision of medical first-aid. The licensee proposes that immediate first aid and casualty care will be undertaken by volunteer trained staff who will replace the service provided by WRS. The licensee intends to replace the WRS function with Nuclear Operational First Aiders (NOFAs) in operational areas and First Aiders in office areas.
13. I have considered the licensee's arrangements to ensure that Winfrith has adequate numbers of NOFAs and First Aiders to respond. Each work area has completed a first aid needs assessment that identifies the minimum number of NOFAs and First Aiders. I am content that the licensee's proposed changes will continue to provide sufficient medical first-aid response anywhere on site.
14. I have also considered the level of training and competence of NOFAs and have found that they are staff with operational experience that are trained by the British Red Cross to an equivalent standard to WRS. In addition, NOFAs have also been trained in wound decontamination.
15. The current emergency plan identifies additional duties that could be undertaken by WRS (as described previously). Also, the extant plan identified alternative staff including the Site Incident officer and Local Incident Controller that could also be deployed to:
- Evaluate incidents and determine likely plan of action and resources required;
  - Interact with external emergency services;
  - Deploy control measures and tactics within their capability to prevent escalation of the incident or medical treatments.
  - Making declaration for First and Amber Alerts.
16. The revised emergency plan also identifies the same roles to undertake the same responsibilities. I have reviewed the proposed emergency plan and consider that the licensee has identified adequate resources within its emergency organisation to take on the remaining WRS duties.
17. The licensee has taken this opportunity to re-write its emergency plan into the Magnox generic format. ONR has considered emergency plan revisions for other Magnox reactor sites and is content with this generic emergency plan template. I have checked the licensee's proposed emergency plan against the requirements of the Safety Assessment Principle (SAP) AM.1 [Ref 8] and Technical Inspection Guide (TIG) 11 [Ref 9]. I consider that it meets the requirements of those documents.
18. I therefore consider that the licensee's proposed arrangements to transfer the duties undertaken by WRS to be acceptable. I also judge that the arrangements as expressed in that plan to be adequate and, as they form the basis of the revised plan, I have a commensurate level of confidence in the revised plan.

### **3.2 DEMONSTRATION OF PROPOSED EMERGENCY PLAN**

19. The licensee demonstrated the aspects of the proposed emergency arrangements that it proposes to change to ONR's satisfaction by staging a demonstration exercise Jackdaw on 21<sup>st</sup> April 2016 [Ref 8].
20. Whilst ONR considered that the licensee had demonstrated that it could deal with an emergency a number of improvements were recommended. The licensee has accepted these recommendations and provided ONR with a suitable improvement plan [Ref 1].

### **3.3 SUMMARY**

21. Overall I consider the organisational changes proposed by the licensee are appropriate and that the licensee has demonstrated that its new emergency arrangements are effective. I consider that the revision of the emergency plan into a common MxL format has produced a suitable document, and see no reason to withhold approval or request any changes to this plan. It is consistent with ONR guidance.
22. It reflects our own guidance, and does so in a way that makes Magnox's response to an accident or emergency at Winfrith easy to understand.

### **3.4 LEGAL ASPECTS**

23. I have drafted Licence Instrument (LI) 504 [Ref 12] in response to the licensee's request for Approvals under Licence Condition 11(3) of the revision to the emergency plan. This LI is one of the standard formats given within ONR procedures and so they it does not require review by Treasury Solicitor's Department.

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

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

## **5 CONCLUSIONS**

25. I am satisfied that the revised emergency plan introduces only one material change to the extant arrangements, the withdrawal of the WRS and transfer of its responsibilities to other available site emergency resources.
26. The licensee has provided an adequate justification both for the revision to the emergency plan and for the revised arrangement to replace the WRS including providing assurance that it has adequate resources within its emergency organisation to carry out the duties currently performed by the WRS.
27. The licensee successfully demonstrated the aspects of the proposed emergency arrangements that it proposes to change to ONR in April 2016.
28. Finally, I consider that the proposed emergency plan will provide suitable and sufficient detail to enable the licensee to safely deal with an on-site emergency should the need arise.

## **6 RECOMMENDATIONS**

29. I recommend that:
  - Licence instrument 504 be issued under site licence number 100 to approve, Winfrith Site Emergency Plan, WIM-EMPLAN, Issue 5, dated 9 March 2016.

- ONR thereby withdraws Licence instrument 515 issued under site licence number 85 for the approval of Winfrith Site Emergency Plan, SE/W/EP/01, Issue 4, dated 4 July 2013.

## 7 REFERENCES

1. Magnox/Win-50003Y, Letter from Magnox Ltd Winfrith, Request for Approval of the revised Winfrith Site Emergency Plan, 17 May 2016. (TRIM reference 2016/301472).
2. WIM-EMPLAN, Magnox Ltd, Winfrith Site Emergency Plan Issue 5, dated 9 March 2016. (TRIM reference 2016/112818).
3. SE/W/EP/01, RSRL, Winfrith Site Emergency Plan Issue 4, June 2013. (TRIM reference 2014/112854).
4. MXL32228N – Minutes of the Joint Meeting of the Magnox Limited Berkeley, Bradwell, Chapelcross, Dungeness A, Harwell, Hinkley Point A, Hunterston A, Sizewell, Trawsfynydd and Winfrith Nuclear Safety Committee - Meeting held on 21 January 2016 (TRIM reference 2016/112833).
5. LC36 Baseline Organisational Change Management Form, Winfrith Assurance Incident Response Capability Project 420, Magnox Ltd, December 2015. (TRIM reference 2016/112738).
6. Management of Organisational Change Winfrith Incident Response Capability, Assurance/15/00054, issue 1.1, Magnox Ltd, 15 November 2015. (TRIM reference 2016/297126).
7. ONR-DFW-PAR-14-018 Relicensing Research Sites Restoration Limited Sites to Magnox Limited, April 2015. [www.onr.org.uk/pars/2015/harwell-winfrith-14-018.pdf](http://www.onr.org.uk/pars/2015/harwell-winfrith-14-018.pdf)
8. Safety Assessment Principles for Nuclear Facilities. 2006 Edition Revision 1. January 2008. [www.onr.org.uk/saps](http://www.onr.org.uk/saps)
9. NS-INSP-GD-011 Revision 2 LC 11 – Emergency Arrangements. May 2013 [www.onr.org.uk/operational/tech\\_insp\\_guides/ns-insp-gd-011.pdf](http://www.onr.org.uk/operational/tech_insp_guides/ns-insp-gd-011.pdf)
10. Exercise Operational Order Winfrith Safety (IRC Demonstration) Exercise Exercise Jackdaw 21 April 2016 Magnox Ltd. (TRIM reference 2016/176943)
11. ONR-SDFW-IR-16-011 Winfrith Compliance Inspection, dated 29 April 2016. (TRIM reference 2016/172697)
12. Site Licence No: 100, Licence Instrument No: 504. August 2016. Nuclear Installations Act 1965 (As Amended). Approval Granted under Condition 11(3) of Schedule 2 attached to Nuclear Site Licence No: 100. Winfrith. (TRIM 2016/296957)