



Office for
Nuclear Regulation

ONR Statement

**Examination of West Berkshire Local Plan 2022-
2039**

Written Statement on M3

ONR Statement

Project Name: Examination of West Berkshire Local Plan 2022-2039

Report Title: Written Statement on M3

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List of Abbreviations

AWE	Atomic Weapons Establishment
DEPZ	Detailed Emergency Planning Zone
NPPF	National Planning Policy Framework
ONR	Office for Nuclear Regulation
OSEP	Off-Site Emergency Plan
REPPiR01	Radiation (Emergency Preparedness and Public Information) Regulations 2001
REPPiR19	Radiation (Emergency Preparedness and Public Information) Regulations 2019
UKHSA	United Kingdom Health Security Agency
WBC	West Berkshire Council

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1. Introduction

1. This section provides the following:
 - An explanation of the purpose of this submission; and
 - An explanation of ONR's role.

1.1. Purpose

2. This written statement has been produced by the Office for Nuclear Regulation (ONR) in order to respond to the Planning Inspector's questions Q3.5.

1.2. ONR

3. ONR was established as a statutory Public Corporation on 1 April 2014 under the *Energy Act 2013*. We are the UK's independent nuclear regulator for safety, security, and safeguards. Our mission is to protect society by securing safe nuclear operations.
4. ONR is participating in the West Berkshire Council Local Plan Review 2022-2039 and the Planning Inspector's Examination because of the presence in the local authority's jurisdiction of two nuclear licensed sites regulated by ONR: AWE Aldermaston and AWE Burghfield.
5. ONR is seeking to assist the Planning Inspector by providing advice on those aspects of the emerging Local Plan that impact on matters regulated by ONR.

1.3. Background

6. ONR submitted a Regulation 19 Consultation Response on the West Berkshire Local Plan Review on 25 January 2023

2. Background and Definitions

7. This section provides the following:

- A definition and an overview of external hazards, to which later parts of this statement will refer;
- An overview of the radiation emergency planning regulatory framework, REPP19, and definitions of associated terminology to which later parts of this statement will refer; and
- A summary of how both external hazards and REPP19 apply to the AWE sites.

2.1. REPP19

8. In May 2019, the *Radiation (Emergency Preparedness and Public Information) Regulations 2019* (REPP19) came into force. REPP19 imposes duties on operators who work with ionising radiation and local authorities to plan for radiation emergencies.

9. REPP19 is part of an international, EU and national response to lessons learned from the Fukushima Daiichi nuclear power plant accident in Japan in March 2011. Amongst the significant changes to emergency planning reflected in REPP19, is to require planning for events which have a low likelihood of occurrence but high impact in the event they do occur. The new regulations strengthen the requirements for operators to assess all hazards arising from work undertaken that has the potential to cause a radiation emergency.

2.1.1. Radiation Emergency

10. Regulation 2(1) of REPP19 defines a Radiation Emergency as,

“... a non-routine situation or event arising from work with ionising radiation that necessitates prompt action to mitigate the serious consequences of –

(a) of a hazard resulting from that situation or event;

(b) of a perceived risk arising from such a hazard; or

(c) to any one or more of –

(i) human life,

(ii) health and safety,

(iii) quality of life,

- (iv) property, and
- (v) the environment.”

2.1.2. Detailed Emergency Planning Zone

11. The Detailed Emergency Planning Zone (DEPZ) is the geographical zone in which it is proportionate to make detailed plans for protective action in the event of a radiation emergency. There are two stages to the process of determining a DEPZ.
12. The first stage puts duties on the operators of premises which hold quantities of radioactive materials above specified thresholds. Regulation 4 requires the operator to undertake a written evaluation identifying all hazards arising from the operator’s work which have the potential to cause a radiation emergency. The evaluation is referred to as a ‘Hazard Evaluation’ in REPP19.
13. Where the evaluation reveals the potential for a radiation emergency to occur, Regulation 5 requires the operator to assess a full range of possible consequences of the identified emergencies. The assessment is referred to in REPP19 as a “Consequence Assessment”.
14. The requirements for an assessment include consideration of the range of potential ‘source terms’ (defined as the radioactivity which could be released which includes the amount of each radionuclide released; the time distribution of the release; and energy of the release); the different persons that may be exposed; the effective and equivalent doses they are likely to receive; the pathways for exposure and the distances to which urgent protective reaction may be warranted for the different source terms when assessed against the United Kingdom’s Emergency Reference Levels published by the United Kingdom Health Security Agency (UKHSA).
15. Regulation 7(1) & 7(2) of REPP19 require the operator to produce a report setting out the consequences identified by the assessment, called a Consequences Report, which must be sent to the local authority. The Consequences Report must include a proposed minimum geographical area from the premises to be covered by the local authority’s off-site emergency plan.
16. The second stage of the DEPZ determination process is the responsibility of the local authority. Regulation 8(1) of REPP19 provides that the local authority must determine the DEPZ based on the operator’s recommendation and may extend that area in consideration of local geographic, demographic and practical implementation issues; the need to avoid, where practicable, the bisection of local communities; and the inclusion of vulnerable groups immediately adjacent to the area proposed by the operator.

2.1.3. Off-Site Emergency Plan

17. Regulation 11(1) & (2) of REPP19 provides that, where premises require a DEPZ, the local authority must make an adequate Off-Site Emergency Plan (OSEP) covering the zone. The plan must be designed to mitigate, so far as is reasonably practicable, the consequences of a radiation emergency outside the operator's premises.
18. When preparing or reviewing the OSEP, Regulation 11(5) of REPP19 requires the LA to consult the operator, Category 1 & 2 responders (as per the Civil Contingencies Act 2014), relevant health authorities, the Environment Agency, UKHSA, and such other bodies it considers appropriate.

2.1.4. Testing and Review

19. Regulation 12(1) of REPP19 requires the LA to do the following at suitable intervals not exceeding three years:
 - Review and where necessary revise the OSEP; and
 - test the OSEP to the extent necessary to ensure that the plan is effective.
20. Regulation 12(8) of REPP19 requires the LA to produce a report on the outcome of the test, highlighting strengths and weaknesses of the OSEP. Regulation 12(4) of REPP19 requires any review of the OSEP to take into account the report of the outcome of the test.

2.1.5. Site Operations

21. Regulation 10(4) of REPP19 prevents the operator from carrying out work with ionising radiation unless the LA has complied with its duty to produce an adequate OSEP.

2.2. External Hazards

22. External hazards are defined in paragraph 228 of the ONR Safety Assessment Principles as "those natural or man-made hazards to a site and facilities that originate externally to both the site and its processes..." such that the nuclear site operator may have very little or no control over the initiating event. They include for example fire, toxic release, missiles, electromagnetic interference and flooding.
23. The principal piece of legislation for the regulation of nuclear safety in the UK is the Nuclear Installations Act 1965 (NIA 1965). NIA 1965 requires certain installations to have a nuclear site licence. The operators of nuclear licensed sites have a duty to develop and maintain site licence compliance arrangements, which includes the requirement to produce and maintain a

safety case. The safety case must address the management of risks arising from external hazards.

2.3. AWE Sites – Licence & DEPZ/OSEP

24. WBC hosts the AWE Aldermaston and AWE Burghfield sites in its jurisdiction.
25. AWE Aldermaston and AWE Burghfield are both nuclear licensed sites.
26. WBC has determined a DEPZ for each site, in accordance with the statutory process, and has produced an Off-Site Emergency Plan (“OSEP”) that applies to both DEPZs.

3. Advice on Q3.5

27. **Is policy SP4 relating to development within the Detailed Emergency Planning Zones, the 5km Outer Consultation Zones, and 12km Consultation Zones around AWE Aldermaston and AWE Burghfield consistent with national policy and relevant legislation?**

3.1. Response

28. Policy SP4 is consistent with national policy and relevant legislation as it applies to:
- Implementing the NPPF requirement to consult ONR;
 - Identifying the legislative regimes that ONR will consider when generating its advice; and
 - Implementing the consultation arrangements found in ONR’s land use planning policy

3.2. ONR’s Land Use Planning Role

29. ONR has a role which is set out in the National Planning Policy Framework (NPPF) Paragraph 45, which states that,
- "Local planning authorities should consult the appropriate bodies when considering applications for the siting of, or changes to, major hazard sites, installations or pipelines, or for development around them".
30. The NPPF Glossary defines major hazard sites, installations and pipelines as,
- "Sites and infrastructure, including licensed explosive sites and nuclear installations, around which Health and Safety Executive (HSE) (and Office for Nuclear Regulation) consultation distances to mitigate the consequences to public safety of major accidents may apply".
31. For nuclear sites ONR’s role in planning system is expressed in the National Policy Statement for Nuclear Power Generation (EN-6 Vol II), which states,
- "ONR administers the Government’s policy on the control of population around licensed nuclear sites"
32. Although EN-6 only relates to nuclear power plants (which the AWE sites are not), this statement expresses a wider policy intent of development control extending for all licensed nuclear sites (which includes the AWE sites).

3.3. Land-Use Planning Decisions – Impact

33. Land-use planning decisions can have an impact on the safety of nuclear sites through their potential effects on the following:
- Emergency planning, which concerns mitigation of radiation emergencies on proposed development and existing developments from hazards; and/or risks arising at the nuclear site.
 - External hazards, which are risks to the nuclear site from hazards arising at or affected by the proposed development (e.g. a proposed development introduces a flooding risk for the nuclear site).
34. ONR is the regulator for GB Nuclear sites and is required to ensure the nuclear safety of such sites. ONR has a direct regulatory interest in land-use planning decisions that may impact on nuclear safety.

3.4. Relevant Legislation

35. The relevant legislation is as follows:
- The duty for a local authority to have an adequate OSEP arises from REPP19; and
 - The duty for the site operator to account for new external hazards arises from ONR's NIA65 nuclear site licensing regime.
36. Proposed development must be accommodated in either the OSEP (if located in the DEPZ) and/or site operator's safety case (for external hazards). If the proposed development cannot be accommodated in one or both of these, but is built nonetheless, it may place either the local authority and/or site operator in statutory non-compliance.
37. If either the site operator or the local authority become non-compliant, then the public living in the vicinity of the AWE sites would not be afforded the level of protection that the law requires.

3.5. ONR's Land Use Planning Policy

38. ONR has established a Land Use Planning Policy for the purposes of enabling us to provide advice to local planning authorities on proposed developments on and around nuclear sites. The advice provided seeks to limit both the potential for developments to pose external hazards to nuclear sites and the radiological consequences to members of the public in the event of a radiation emergency occurring on such sites. ONR's advice on proposed developments is informed by the views of local authority emergency planners and the nuclear site's planning function.

39. Our planning policy establishes the DEPZ, Outer Consultation Zones, and 12 km zones as ONR land use planning consultation zones. The radius of the circular Outer Consultation Zones for each of the AWE sites is set in our planning policy at 5 km. These are the consultation zones (distances) set by ONR in accordance with the NPPF.
40. ONR's land use planning policy is available on our website¹.

3.6. Amendments

41. ONR's consultation zones may be amended from time to time. This is a consequence of ONR's consultation zones being derived with reference to safety considerations. Consequently, changes to the law, site operations, and/or scientific understanding² may result in the need to amend the consultation zones.
42. In particular, the DEPZ is determined in accordance with a statutory process that must be reviewed following a material change or otherwise periodically (no later than 3 years following the last review). It is not considered desirable for there to be frequent changes to DEPZs because of the potential to cause confusion to members of the public living in the area, but, nevertheless, these reviews may necessitate changes in the size of the DEPZs. The DEPZs may also need to be revised as a result of changes to legislation and/or associated guidance³.
43. In order to ensure that we are able to provide relevant safety advice for the lifetime of the emerging Local Plan, Policy SP4 accommodates the possibility that there could be changes to our consultation zones.

¹ <https://www.onr.org.uk/land-use-planning.htm>

² This is not an exhaustive list

³ When the UK Parliament replaced REPPiR01 with REPPiR19, methodological changes introduced in the new legislation led to a significant increase in the size of the AWE Burghfield DEPZ.