

TOWN AND COUNTRY PLANNING  
ACT 1990 (AS AMENDED)

Appeal by T A Fisher & Sons Limited  
against a refusal by West Berkshire  
District Council of planning permission  
for:

*Erection of 32 dwellings including  
affordable housing, parking, and  
landscaping. Access via Regis Manor  
Road*

Land to the rear of The Hollies Nursing  
Home, Reading Road, Burghfield  
Common

**23 August 2024**

**ADDENDUM PROOF OF EVIDENCE**

**Safety including nuclear safety,  
REPPIR 2019 and continuity of AWE  
Burghfield's operations**

**Prepared by:**

Person AW on behalf of AWE plc  
(AWE) and Ministry of Defence (MOD)

**LPA Ref: 22/00244/FULEXT**

**Appeal Ref:**

APP/W0340/W/22/3312261

## 1. **QUALIFICATIONS AND RELEVANT EXPERIENCE**

- 1.1 I hold a Bachelor of Engineering Degree in Engineering and German and a Master of Science Degree in Safety and Loss Prevention. I also hold a National Examination Board in Occupational Safety and Health (NEBOSH) Certificate.
- 1.2 I have 30 years' experience in the production of safety cases for high hazard industries, ranging from Oil and Gas, Explosives, Nuclear, and Nuclear-Explosives.
- 1.3 I spent 12 years in consultancy initially with AEA Technology (Safety and Reliability Directorate) and then WS Atkins until 2006 when I joined AWE plc (AWE) as a full-time employee. During my time in consultancy, I was responsible for the production and peer review of safety cases for the following clients: UKAEA Dounreay; UKAEA Harwell; HMNB Devonport; Shoeburyness; AWE plc. and Defence Ordnance Safety Group.
- 1.4 The safety case work included COMAH safety cases and nuclear safety cases for new builds, operational facilities and facilities in decommissioning. I also provided training courses on safety case production process and peer review and have lectured on the Shrivenham Explosive, Ordnance Engineering MSc covering Hazard Identification and Risk Assessment Techniques.
- 1.5 At AWE, I was Head of Environment Safety and Health for Directorate Major Projects (DMP) and Capital Projects (now known as Infrastructure Projects Directorate); during that time, I was responsible for the production of safety cases and safety assessments for all new build projects. Following my work for DMP I became the Head of Nuclear Safety overseeing AWE's compliance with all Nuclear Licence Conditions. However, due to my technical knowledge and experience, AWE determined that my skill set would be best utilised in providing strategic and technical direction for safety case production across the Company.
- 1.6 I spent a number of years at AWE Burghfield providing technical leadership in production of Facility Safety Justifications for the extant processing facility and the replacement new build facility. Within this role I was responsible for the facility Hazard Analyses determining the fault sequence frequencies and the dose estimates at the site fence which were used as the reference accidents for the previous Hazard Identification and Risk Evaluation (HIRE) (under Radiation (Emergency Preparedness and Public 2

Information) Regulations 2001 (REPPiR 2001) and the 2019 Hazard Evaluation and Consequence Assessment (HECA) (under Radiation (Emergency Preparedness and Public Information) Regulations 2019 (REPPiR 2019). During that time, I was also one of the Burghfield Emergency Managers.

- 1.7 I am currently the Technical Authority in Design Basis Accident Analysis, Probabilistic Safety Assessment and Nuclear Explosive Hazard Analysis. I also provide training in regulatory framework and Licence Condition / Authorisation Condition compliance.
- 1.8 At present I am the Facility Safety Case and Integration Lead for a major programme and ensure integration between the design engineers and the Lifecycle Phase safety cases across the Nuclear Weapon Enterprise, providing technical advice on the safety production process and influencing the safety of the design.
- 1.9 I understand my duty to provide independent evidence to the Inquiry and appointed Inspector and have sought to comply with this duty in preparing my evidence and will continue to comply with this duty as required. To ensure that my evidence is independent, I have approached my analysis and conclusions with objectivity and impartiality, and I have not been influenced by any party or interested person.

## 2. **SCOPE OF EVIDENCE**

- 2.1 On 11 May 2023 I prepared a Proof of Evidence [CD13.42] on behalf of AWE/MOD concerned with the safety, including nuclear safety, and the continuity of operations case for AWE Burghfield (AWE B).
- 2.2 Then, on 23 May 2023, I prepared a rebuttal proof of evidence [CD13.46] on behalf of AWE / MOD in response to the evidence of Dr Pearce acting on behalf of the Appellant.
- 2.3 I understand the planning inspector's decision to grant planning permission following the Public Inquiry in June 2023 has been quashed by the courts and the appeal is being redetermined by another public inquiry in September 2024.
- 2.4 This addendum proof of evidence provides an update to my Proof of Evidence and Rebuttal Proof for the public inquiry in September 2024. My Proof of Evidence and Rebuttal Proof are annexed to this document and they remain my evidence as stated in those documents.

### 3. **INTERNATIONAL COMMISSION ON RADIOLOGICAL PROTECTION (ICRP)**

- 3.1 The International Commission on Radiological Protection (ICRP) has recently finished consultation in respect of its publication entitled “Dose Coefficients for Intakes of Radionuclides by Members of the Public: Part 1” and has also released the draft issue of “Dose Coefficients for Intakes of Radionuclides by Members of the Public: Part 2” for consultation, with comments required to be submitted by 02 August 2024.
- 3.2 This is an example of a change in relevant good practice which AWE is required to follow. A potential for such a change was referred to in my Proof of Evidence paragraph 3.9: *“It should be noted that the UPA distance will not remain static and has the potential to increase or decrease as changes to the operations at AWE or in the legislation, guidance and/or national or international best practice are realised. For example, a change in the International Commission on Radiological Protection (ICRP) recommendations for public dose coefficients is due to be issued in the near future and may require a recalculation of the UPA distance.”*
- 3.3 The Approved Code of Practice and Guidance for REPPiR (ACOP) [CD12.6] states at paragraph 211:-*“ Operators should also remain aware of any external developments that may affect the consequence assessment, such as the latest confirmed scientific evidence on the effects of ionising radiation on humans (including introduction of revised radiation weighting factors where they have been modified in national or international standards) or transfer of radionuclides in the environment. It is the operator’s responsibility to ensure that the hazard evaluation and consequence assessment reflect current national and international standards”*
- 3.4 It also states at paragraph 218(j) of the ACOP that one of the examples of a material change is *“changes to values or application of international or national radionuclide dose coefficients”*. A change to the known radiotoxicity of materials relevant to AWE is considered a material change, which will trigger AWE to carry out a review of our Hazard Evaluation and Consequence Assessment (HECA) for AWE Aldermaston and Burghfield.
- 3.5 AWE will commence the adoption of the new public dose coefficients after they have been formally published by ICRP, when they will be considered to be an International Standard and relevant good practice in the UK.

3.6 AWE has detailed processes in place to assess the impact of and implement the changes to legislation and relevant good practice. This will take a period of time due to the number and complexity of the safety cases at AWE.

3.7 It is therefore inappropriate and incorrect to speculate, at this time, on what may or may not be the output of a future HECA and what implications this could then have on the Urgent Protection Area (UPA) and Detailed Emergency Planning Zone (DEPZ).

#### 4. **SUMMARY AND CONCLUSIONS**

4.1 From my original proofs of evidence, I can confirm that the 2019 HECA reflects the frequency and consequence data from the Probabilistic Safety Analysis (PSA) within the Burghfield Facility Safety Justification. All assessments have satisfied regulatory scrutiny and third-party challenge on:

4.1.1 appropriateness of the consequence and frequency values within the Burghfield Facility Safety Justification;

4.1.2 the rationale for the use of Category F weather; and

4.1.3 rationale for the setting of the UPA distance.

4.2 The point of setting the UPA is to ensure that a suitable off-site emergency plan is in place as part of the defence-in-depth approach to nuclear safety to mitigate the radiological consequences of a release of radioactive material into the environment. Arguing that such defence-in-depth is not required based on low individual risk to a member of the public is not consistent with the requirements of REPIR 2019 or the expectations of defence-in-depth (suitable emergency off-site plan) which supports the ultimate argument for ensuring risks are kept ALARP.

4.3 REPIR 2019 is not just focussed on public safety during the immediate emergency but also focuses on the longer-term impacts to the public and the transition to the recovery phase (covered by the Civil Contingencies Act 2004).

4.4 The UPA distance has been determined and the DEPZ established. In my opinion, arguments that the risk to individuals is “low” are not relevant to the question of what is required under REPIR 2019 in terms of an adequate OSEP and, therefore, what the impact of an inadequate OSEP may have for AWE’s operations. These arguments are not consistent with well-established principles of nuclear safety and the underlying

regulatory regime. Increasing the number of people within the DEPZ has the potential to adversely affect the adequacy of the plan and will increase the number of people exposed to radiation emergency and all the associated longer-term impacts.

- 4.5 AWE as Nuclear Licensed Site is subject to a regulatory permissioning regime in accordance with ONR guidance “Licensing Nuclear Installations Nov 2021” (see Appendix 1 to my addendum proof) and ONR guidance “Nuclear Safety Permissioning, October 2023” (see Appendix 2 to my addendum proof). To allow requested permissions (Agreement) to be granted ONR assesses AWE’s safety justifications to establish whether AWE has demonstrated that it understands the hazards associated with its activities and how to control them adequately. Assessment of adequacy of control will take into account on-site and off-site emergency arrangements. Failure to demonstrate adequacy of controls could result in the permission to undertake requested activities not being granted. This regulatory process is separate to REPIR. This could result in AWE not being able to deliver its future operating capability required by MOD in support of CASD.
- 4.6 As I have explained in my original proofs of evidence, increasing the population within the DEPZ can have a potential adverse effect on the future operations of AWE. In particular if ONR deemed the off-site emergency plan inadequate then AWE may not be able to continue to work with ionising radiation in line with Regulation 10(4) REPIR 2019 and/or may be subject to other regulatory restrictions through its site licence and other consents (see my original proof at 11.2.2).

5. **DECLARATION**

The evidence which I have prepared and provide for this planning appeal in this proof of evidence is true and has been prepared and is given in accordance with the guidance of my professional institution and I confirm that the opinions expressed are my true and professional opinions.

**Dated:** 23 August 2024

*Person AW*

**Person AW**