



**TOWN AND COUNTRY PLANNING ACT 1990 (AS
AMENDED)**

**REDETERMINATION APPEAL BY T A Fisher & Sons
Ltd**

Against the refusal of Full Planning Permission by West
Berkshire Council

ON

**LAND TO THE REAR OF THE HOLLIES, READING ROAD,
BURGHFIELD COMMON**

For The erection of 32 dwellings including affordable housing,
parking and landscaping. Access via Regis Manor Road.

APP/W0340/W/22/3312261

Redetermination Appeal – August 2024

Summary Proof of Evidence of Dr Keith Pearce BSc BA MBA
MSc PhD FEPS of Katmal Limited

Reviewed by Michael C Thorne BSc PhD FInstP FSRP CRadP of
Mike Thorne and Associates Limited

1. The application is for the erection of 32 dwellings including affordable housing, parking and landscaping on land to the rear of the Hollies (the “proposed site”).
2. AWE have objected, citing public safety concerns but also concerns about their own future being limited by a growing local population.
3. WBC have objected citing concerns that their off-site emergency plan cannot cope with the growing population and that this may harm public health and wellbeing.
4. ONR have objected because WBC have failed to express confidence in the off-site emergency plan that they are required to maintain in a form that is “adequate” and “can be put into effect without delay” [CD 12.6]¹.
5. In my full proof of evidence, I show that the AWE site poses a minuscule risk to members of the public living in the proposed site and their neighbours. This is done by considering the likelihood of the explosive distribution accident of main concern, the likelihood of the accident affecting the development site, which requires the wind to be blowing in the right direction, and the consequences in terms of radiation dose and its effects on people outside during the release. By combining these estimates, we arrive at an estimated risk level well below everyday risks. (Section 6).
6. None the less, the AWE Consequence Report [CD 11.6] for the site, reports that the likelihood of the fault is sufficient for it to require “detailed planning” and that the 7.5 mSv public dose contour is beyond the proposed site for some weather conditions. This means that, if members of the public take the right actions (take shelter in a building) quickly enough, they can, in principle reduce their radiation doses by useful amounts. In this context “useful amounts” denotes avertable doses in excess of the Lower Emergency Reference Level (ERL) of 3 mSv for shelter. It is therefore appropriate to have an off-site plan for AWE Burghfield that encompasses the proposed site.
7. The full Proof of Evidence discusses how the emergency plan aims to reduce radiation doses to members of the public by priming them before the event to

¹ REPPiR Regulation 11(1) and Approved Code of Practice paragraph 334

understand the situation (prior information), then getting a timely message to them to shelter (alert) and then providing further information to reinforce the safety advice and provide reassurance (informing). (Section 7).

8. None of these actions require resources that scale with population. Neither is the value of shelter to an individual at all related to the population density of the area in which they find themselves during a release. This suggests that the effectiveness of the off-site plan with regard to reducing radiation dose is independent of population or population density.
9. The value of shelter as a means to reduce inhalation dose is discussed as are the drawbacks of applying shelter advice to too wide an area and for too long (section 7.3 & 7.4).
10. A major difference of opinion centres on the duration and consequences of the accident upon which the off-site emergency plan is based. Either it is short lived and localised or it is widespread and continuing. In the first case the majority of the population can start returning to normal life within hours of the declaration. In the latter, the protective actions will be required over a wider area and for longer and can be expected to cause safety and wellbeing issues of their own.
11. It is argued that the Consequence Report and some physics is sufficient to show that the harmful effects of the explosive distribution of plutonium is likely to be short lived and localised. This allows the protective actions to be withdrawn before many of the consequences that concern the local authority (over full Rest Centres, medical, personal and social issue mounting in the sheltered population, unfulfillable demand on Radiation Monitoring Units) become pressing problems. (Section 6.3).
12. Concerns that the plan might fail at some time in the future in response to growing population lead to a conversation about “tipping points”. These are discussed and it is shown that, contrary to the ONR assertion, it is possible to determine, at least roughly, where these tipping points might be and how they might be managed. (Section 9.2).

13. The various threats to the future of AWE Burghfield are discussed. (Sections 10 -13).
It is concluded that this development cannot threaten the future of the AWE Burghfield site in any meaningful way.
14. The perceived weaknesses of the off-site plan are discussed. It is suggested that complex plans can always expect to have identifiable areas for improvement, and we should have confidence that if WBC, AWE plc and the ONR work together with the responding organisations and subject matter experts the plan can remain fit for purpose for the foreseeable future. (Sections 15 and 17).
15. There is no good argument that the development of the proposed site could have any bearing on local public safety and wellbeing, on the continued adequacy of the off-site emergency plan or on the future operations at AWE Burghfield.