Emergency Planning
Rebuttal

Town and Country Planning Act 1990
Section 78 appeal against the refusal of planning permission

Witness:	**Carolyn Richardson.**
Subject of Evidence:	**Emergency Planning**
Appeal:	APP/W0340/W/22/3312261
Site:	The Hollies Reading Road Burghfield Common Reading RG7 3BH
Proposal:	Erection of 32 dwellings including affordable housing, parking, and landscaping. Access via Regis Manor Road.
Date:	May 2023
Council Reference:	22/00244/FULEXT

West Berkshire COUNCIL

Rebuttal

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Date May 2023

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Rebuttal Points

1.1 I have reviewed the Proofs of Evidence from other parties including those provided by Katherine Miles, Director Pro-Vision and Dr Keith Pearce, Katmal Limited.

1.2 Throughout Katherine Miles documents she regularly refers to the evidence as provided by Dr Pearce. Therefore rather than repeat my points by way of rebutting both of their Proofs of Evidence I shall instead focus on the evidence provided by Dr Pearce.

1.3 In order to develop my rebuttals I have also consulted with the Emergency Planning Managers at Wokingham and Reading Borough Councils, and the Emergency Planning Manager covering both Councils in 2019/2020. In addition I have consulted with Mr Duncan Cox, MSc MRSP Radiation Emergency Response Group Leader, Radiation, Chemical and Environmental Hazards Directorate, UK Health Security Agency (UKHSA). All those whom I have consulted with are members of the AWE Off-Site Planning Group and therefore have a direct interest in this application. There feedback ratified my concerns and are therefore reflected in this rebuttal.

1.4 Throughout the evidence provided by Dr Pearce there were a significant number of points made which were often inaccurate, based on assumptions which cannot be founded and in some cases could potentially place people at risk if followed by the public. I have therefore provided my rebuttal commentary in the order of Dr Pearce's Proof of Evidence as set out below.

1.5 **Para 13:** Dr Pearce states that he has 'helped local authorities, including Reading and Wokingham Borough Councils, understand the Consequence Report sent to them by operators; helping them understand the risk profile of the site they host and to develop appropriate off-site plans'

This statement is inaccurate and following consultation with both Councils in relation to this statement I can confirm that:

a. it was in fact this Council, West Berkshire Council, which provided the Consequence Report to Wokingham and Reading Borough Councils and not the operator, AWE;
b. neither Reading nor Wokingham Borough Councils 'host' the AWE sites, instead West Berkshire Council does and
c. other than a report in relation to the Consequence Report and limited information provided in a report to the Council no assistance was provided in relation to 'develop

appropriate off-site plans' since they do not have off-site plans instead there is one AWE Off-Site Emergency Plan coordinated by West Berkshire Council.

1.6 **Para 19:** first point, second paragraph Dr Pearce states 'an accident at AWE (B) leading to the triggering of the OSEP and urgent protective actions could inconvenience the population without being a material threat to their health and wellbeing'

In my opinion the above statement of Mr Pearce does not take account of the impact that a radiation emergency will have on the community directly or indirectly as set out in my proof of evidence (Section 8) and therefore would be a material threat to their health and wellbeing.

1.7 **Para 19**: second point Dr Pearce states that 'The increased number of inhabitants of the DEPZ will not put a material additional strain on the resources of the Off-Site plan'

In my opinion, and that of the UKHSA, any increase in the number of residents in the DEPZ places additional potential burden on the requirement to monitor members of the public for radioactive contamination/intake should a release occur. The development therefore does /would impact on the off-site plan and supporting plans.

In addition in this second point, third paragraph Dr Pearce states that 'the elevated dose rates would be a short duration, (during the passing of the initial plume) with resuspension around 1% thereof and this immaterial'.

I am advised by UKHSA that whilst the instantaneous air concentration due to resuspension is lower than that during the plume phase, the duration that resuspension presents a risk is far longer and thus may well present a significant hazard which requires relocation of parts of the population from contaminated areas. This would be subject to decisions at the time of the emergency.

1.8 **Para 38:** Dr Pearce states 'Because of the nature of the release (plutonium dioxide powder) members of the public are only at risk while the plume is passing, once it has passed the dose uptake rate would be very much lower (around 1% of the plume passage dose). There will be no need for sheltering for more than a few hours in terms of dose avoidance (though residents may be asked to shelter for up to 2 days to allow full flexibility of operations in the local area for responders) and no need for eventual evacuation or relocation'

In my opinion to suggest that shelter may be necessary for a few hours and that residents may be asked to shelter for more time and up to 2 days to allow flexibility for responders, is not only inaccurate but also potentially such a statement could put people at risk. It is clear in the Consequence report of 2019 (Appendix 1 of my Proof of Evidence) that there may be a reason for sheltering to be required for up to 48hrs based on the radiation risk at the time and not as is suggested to accommodate the responders. The statement made by Dr Pearce also does not take into account the duration that resuspension may present which UKHSA have advised is a risk for far longer and thus may well present a significant hazard which requires relocation/evacuation of parts of the population from contaminated areas. This would be subject to decisions at the time of the emergency. In addition it does not take account of the fear factor, the reassurance needed etc by the community as set out in my Proof of Evidence.

This latter point also relates to the statement made by Dr Pearce in **Para 84: point 4 and Para 129.**

Therefore I do not agree with Dr Pearce's statement.

1.9 **Para 39:** Dr Pearce states towards the end that 'the doses likely to be received are comparable to those met in everyday life' and these would pose 'no material threat to the health and well-being of the occupants on the development'

In my option this is inaccurate and, as I understand it, it is accepted within the UK and by the International Commission on Radiological Protection (ICRP) that any radiation received increases the risk of stochastic effects proportionally. Again Dr Pearce's statement also ignores the impact on the community affected in relation to their health and longer term well-being in relation to a radiation emergency as set out in my Proof of Evidence.

1.10 Para 40: Dr Pearce states that 'The Proposed Development is so distant from AWE Burghfield that urgent evacuation would not be required even for extreme accidents (as is confirmed in the off-site emergency plan), and *longer-term relocation will not be necessary for those living on the site'*

I would totally disagree with the final point made in this paragraph in that it cannot be stated with any degree of certainty that relocation/evacuation would not be required.

The urgent protective actions in the off-site plan (sheltering) provide some protection from the inhalation of radioactive material in the plume. Decisions on relocation (evacuation), whether temporary or permanent, would be taken by multi-agency responders at the time of an emergency taking empirical data on what has happened into account at that time. Therefore evacuation/relocation is certainly something that may be necessary and the impact on responders and importantly those involved simply cannot be ignored.

1.12 **Para 48:** Dr Pearce states that 'This plan must cover the DEPZ, hence the increase in the area of the DEPZ in 2020 required the local authority and the other emergency responders to undertake detailed planning over a wider area than previously. They have now had several years to manage this. As part of this exercise, local authorities took into account the consented but not built development located within the newly expanded DEPZ. '

The above statement implies that regardless of the increase in the DEPZ geographic area along with the associated residential and commercial units plus the additional approved but not built developments the AWE Off-Site Emergency Plan can simply be rewritten. Whilst the plan has been revised in light of the changes, as stated in my Proof of Evidence Section 6 showing the scale of increase and Section 9 in particular from 9.10 onwards in relation to rest centres and evacuation in the short and long term, there is clearly a shortage of such accommodation. Therefore the implication that we 'have now had several years to manage this' is totally simplistic and does not take account of the impacts and learning from other incidents as set out in section 8 of my Proof of Evidence.

Therefore I would refute the comments made and the simplicity implied.

1.12 **Para 51:** Dr Pearce highlights an action in the AWE DEPZ Determination Report 19 Jan 2023 (Appendix 3 to my Proof of Evidence and on West Berkshire Councils website) as 'Revising the AWE Off-Site Emergency Plan in order to mitigate the impact for those people/properties now included in the DEPZ'.

In my opinion Dr Pearce has not noted a key factor that this action om fact relates to 3 properties around the AWE (B) site all of which are on the very extreme edges of the DEPZ as set out in Appendix A of that report.

Therefore unlike the subject of this appeal which is in the area requiring urgent protective actions the mitigation required and impact is significantly different.

1.13 **Para 52:** Dr Pearce states that 'REPPIR Regulation 16 allows the local authority to charge the operator a fee for the performance of the local authority's functions in relation to the off-site emergency. Thus, the cost of the plan and its management are borne by the operator and not the local taxpayer.'

The above statement is inaccurate in that the regulation allows for the local authority to charge the operator a fee for the performance of the local authority's functions in relation to the off-site emergency plan relating to the operators premises under regulations 8, 11, 12 and 21. Not, as may be implied by the statement by Dr Pearce, in relation to the off-site emergency which suggests fee recovery from the operator in response. In addition in relation to the statement about the costs not being borne by the local taxpayer but the operator, it should be noted that this operator is AWE on behalf of the Ministry of Defence and therefore costs are ultimately borne by taxpayers.

1.14 **Para 55:** Dr Pearce states in Para 55 that 'They do not report if this process has led to an agreed recovery plan'

In my opinion this statement is inaccurate in that REPPIR19 does not require a recovery plan, instead it requires that 'The emergency plans should also specify the action to be taken to ensure a smooth transition to the recovery phase.' This process is detailed in the Off-Site Emergency Plan.

Such a 'recovery plan' was also not requested in the letter sent to West Berkshire Council and other councils on 13th August 2021 as shown in **Appendix A**. Instead it was requested that each Council with an interest in the DEPZ for both AWE sites inform ONR should an application be approved contrary to their advice. This is the case with this Council.

Therefore the information being shared and implied by Dr Pearce is inaccurate.

1.15 **Para 69:** Dr Pearce states that **'if West Berkshire Council had expressed more confidence in their own off-site plan, then the ONR objection as stated would be withdrawn'**

In my opinion I believe that through the long standing working relationship between the regulators, ONR, and West Berkshire Council through regular regulatory meetings, the Multi-Agency Off-Site Planning Group meetings, and observing and taking part in workshops and exercises (there have been at least 7 such events since May 2021 to Apr 23). The ONR, I believe, fully understand the issues relating to additional developments within the DEPZs of both AWE sites, hence the letter of 13 Aug 2021, **Appendix A**. The ONR also understand the AWE Off-Site Emergency Plan including its limitations, some of which are national limitations. Therefore I believe they have knowledge, confidence and trust in the Council's responses to planning applications. Therefore it is not for the Council to be more confident in the Plan capability but to offer a realistic, honest understanding of the capabilities and issues with the regulator and be on a constant cycle of improving where possible.

1.16 **Para 74:** Dr Pearce states 'In a meeting on 5th October between the Appellant, the Council's Planning Officer (Mr Butler) and the Emergency Planning Officer (Ms Richardson) (CD 5.13) the Emergency Planning Officer referred to needing to draw a '*line in the sand'* (my emphasis) somewhere, and she therefore took a personal view and chose to draw that line so as to exclude sites which were allocated for development in the Development Plan but which did not, at the time of the review, have permission. There is no record of this important and somewhat arbitrary decision being discussed among the local authority strategic decision makers nor was any rationale offered.'

I would disagree with the 'personal view' comment but instead would advise that at the preapp discussions I offered my professional view in relation to the 'line in the sand'. It should however be noted that these issues are also considered by the AWE Off-Site Planning Group, a multi-agency group of up to 27 agencies, and is based on data and considerations relating to the AWE Off-Site Emergency Plan and therefore the public health and well-being implications and in Section 9 of my Proof of Evidence. There was, as also detailed in my Proof of Evidence, a 'material change' in the situation when the DEPZ geographic area changed. Again not undertaken as a result of my 'personal view' but based on REPPIR 19 and the supporting Approved Code of Practice and guidance, the procedures and outcome of which was upheld at the Judicial Review as detailed in January 2021. All of which is reliant on the Consequence Report and the details relating to the area where urgent protective actions are required within which this appeal site sits.

In addition a lot of work has been undertaken across the four Council to review the numbers of properties and the types of properties within the DEPZs which are in existence and, as stated in my Proof of Evidence in para 7.12, an "audit" is undertaken in relation to what applications have been approved within the DEPZs for both sites and are still valid. I should state here this is data which is available in the public domain since it is linked to the Annual Monitoring Report with the data available on the planning portal. It is used by Emergency Planning in order to consider the DEPZ determination, the AWE Off-Site Plan development and in relation to development control applications. It is not a public document but a working document as a result but the data is requested annually in order to ensure currency. **Appendix B** shows the information which was made available for around AWE B site for 2022.

1.17 **Para 94: Dr Pearce states that '**The OSEP (CD 5.42) also notes the possibility of a tritium release. Tritium is of low radiological toxicity and would rapidly disperse in the environment but can cause harm if it gets inside a human body. However, the OSEP states that "an accident involving the dispersion of plutonium would present the greatest potential hazard to the public if it were to occur" *and is thus the accident to use to scope the OSEP based on the presumption that the resulting plan can cope adequately with the different faults that have been considered'*.

It should be noted that tritium is not mentioned in the Consequence Report for AWE (B) site instead it relates to AWE Aldermaston (A) site only at the moment and is therefore irrelevant to this case.

It should also be noted that the AWE Off-Site Emergency Plan is written in accordance with the REPPIR 19 regulations and is based on regulation 11 which requires that an 'adequate off-site emergency plan covering that zone or zones' is developed, where the zones relate to the Detailed Emergency Planning Zone(s) and Outline Planning Zone (OPZ), which of course are based on the Consequence Report which AWE provides based on their analysis. The commentary provided by Dr Pearce therefore makes many assumptions on the hazard and faults whereas the plan is based on the facts provided by AWE and in line with the requirements of REPPIR 19.

I have already made comments in relation to the point made that the plan 'can cope adequately' in my Proof of Evidence and in this document and so will not repeat it here.

There are however some assumptions and inaccuracies in Dr Pearce's document which do not reflect the reality.

1.18 **Para 114 & 115:** Dr Pearce has stated that (114) 'It may be considered relevant by the Inspector that the extent of the DEPZ is based on weather that only occurs during the night since the post-Fukushima "Stress Test" report for the AWE sites (CD 5.30)57 states that "*Operations are undertaken on a batch production basis, **almost wholly during standard daytime working hours** with nuclear production materials stored overnight in safes within the nuclear facilities*".'
and (115) 'It seems likely that for most of the time that the area is experiencing category F weather AWE(B) is not operational and the nuclear production materials safely stored. It is also likely that fewer people are out and about in the local area, rather than in their homes. One apparent contrast would be an evening kick-off at the Majewski stadium (capacity: 24,161), Reading FC's stadium which is located within the expanded UPZ / DEPZ'.

In my opinion this is wholly inaccurate based on my understanding of the weather conditions and the potential for 24hr/365 operation at the AWE sites. It also implies that people when they finish school and work go home and stay there which again is not accurate. It also suggests that if people are out of their home and out of the area when a radiation emergency happens then the impact is reduced. This again is not necessarily the case. Indeed it can complicate the response further since there are likely to be people who are needing support outside the area, who are potentially concerned about their home and people who are at home or in work or school in the affected area. They are also likely to be out of the house with no additional clothing, medication etc etc. As a result there will be an additional resource placed on responders by way of setting up Assistance Centres for those who are out of the DEPZ area when a radiation emergency occurs. The comments made about the Select Car Leasing Stadium (formerly Madjeski Stadium) also imply it is only used for football games; this is not the case.

Therefore, in my opinion, the information provided by Dr Pearce is inaccurate and simplistic in relation to the reality of the impact of a radiation emergency whenever it occurs.

1.19 **Paras 146- 152:** Dr Pearce provided information about the response which is limited, inaccurate and simplistic. Much of which is referred to in my Proof of Evidence however to reinforce my concerns Dr Pearce states in:

a. Para 146 that there are about 7000 households. This is nearly correct in that there are currently in the order of 7738 residential units, however this equates to 18,571 people, in addition there are also ~ 934 commercial units, 6 care homes and 9 children's nurseries and schools and associated children and staff.

b. Para 147 states that 'AWE will prepare and promulgate a situation report', repeating as necessary. AWE will only be one organisation providing information since it is recognised as the 'polluter' the community will require independent expert assurances.

c. Para 148. There is no such thing as a 'local authority Strategic Coordinating Centre' instead the Centre is a multi-agency coordinating arrangement.

d. Para 149 refers to monitoring which will take place. What this does not provide details of however are the resources required by way of equipment and specialists to undertake the work and the time required to do this work which would increase with more properties to monitor, nor does it relate to people monitoring and the resources required for that which again is a specialist role.

e. Para 150 refers to mutual aid. Whilst there are agreements in place the number of people potentially required is challenging in short in term 'normal' incidents but the requirements for a longer term or radiation emergency adds to the complexity of arrangements which would need to be put in place. Any mutual aid support will also need to have a degree of understanding about radiation and REPPIR, therefore support from other areas with nuclear sites is an option. There are therefore limitations in relation to mutual aid support.

f. Para 151 is misleading in relation to the complex nature of any recovery never mind one with radiation.

g. Para 152 suggests that all the above, and in general the response to an AWE radiation emergency, does not get more complicated or require more resources by way of scale with increased populations. I would dispute this statement in that there are more properties to check, there are likely to be more vulnerable people, more people either wishing or requiring radiation monitoring, more properties requiring monitoring and potentially decontamination, more people needing to be subsequently evacuated, more rehousing needs and ultimately a greater number of people having their health and well-being affected.

In summary the points made by Dr Pearce in relation to the response are misleading in their simplistic nature.

1.20 **Para 156**: Dr Pearce states 'The two-day duration claim is notable. *For the explosive distribution fault, I have established both that the release is of a short duration and that the deposition that might occur will not lead to a significant ground dose, resuspension dose or ingestion dose.* The OSEP has (CD 5.42)90 *"*The nature and extent of protective actions will be continuously reviewed by STAC. Advice on amending protective actions will be provided by STAC to SCG, based on the scientific and technical information available at the time*". STAC wil*l therefore have access to expert scientific assessments. It is likely to be possible to advise people that *they can break shelter and return to near normal life* (with exceptions of not harvesting and eating food that was outside during plume transit) within an hour or two of the alarm. This would certainly be true for all those sectors that were not downwind during the release. For the downwind sectors some measurement and dispersion modelling may be required to determine if shelter should be continued near to the site but, at the distance of the proposed development, a quite quick decision to drop the shelter advice might be possible'.

I make particular note to the commentary in italics. This is not for Dr Pearce to assume since he is not the site operator and was not involved in the development of the Consequence Report. Therefore the commentary thereafter in relation to the two days sheltering is speculative.

The suggestion that residents can 'break shelter' and return to near normal life within an hour or two is wholly inappropriate and is alarming that this is now in the public domain. What Dr Pearce does not take account of is that the incident may not be under control within a couple of hours, monitoring and full assessment of the environmental contamination will not be completed within a couple of hours, any people monitoring by way of a Radiation Monitoring Unit will not be in place and fully operational for approximately 24hrs and based on UKHSA figures of 20mins per person to undertake contamination monitoring the time period to undertake the assessments is a prolonged, key decisions need to be made in order to ensure that it is safe for the community to come out from shelter and that must be done on evidence. Therefore in order to allow for the incident on site to be under control, environmental monitoring to be undertaken to allow for considered appropriate advice to be provided and arrangements put in place for people monitoring then the two days (48hrs) is a credible figure for any radiation emergency regardless of cause. In addition the Consequence Report contents, as agreed by UK Health Security Agency (UKHSA) in 2019, and which is referred to in the public booklet clearly state that there is a potential risk that sheltering will be required for 48hrs. This duration is used as it is considered that if sheltering is required for longer, there are additional, non-radiological, risks faced by

the population, such as access to medication and food, and that as a result there may be a need for controlled relocation.

Therefore in my opinion the comments made in para 156 by Dr Pearce should be totally discarded.

1.21 **Para 157:** Dr Pearce states that 'Environmental radiation monitoring, which would largely be for reassurance except near to scene (ie, much nearer to AWE than the appeal site), could continue after the event has moved into the recovery phase'

This is factually incorrect in that Environmental monitoring is needed to provide data to *inform evidence based decision making,* not only reassurance. In addition it will continue into the recovery phase in order to ensure the clean-up is effective.

It should also be noted that the people monitoring as indicated in Para 157 (iv) could also include those in the appeal site and therefore add a further day to run a Radiation Monitoring Unit based on 77 residents and 20mins/person to undertake the monitoring.

Therefore it is my opinion that Dr Pearce has not accurately reflected the requirements or complexities of monitoring strategies and their implementation.

1.22 **Para 158:** Dr Pearce states 'It is worth noting that the recommendation is not for strict sheltering where it is forbidden to enter or leave the building under any circumstances.'

Whilst he does go onto explain this may be in relation to vulnerable groups in planned evacuation what he neglects to advise is that people need to go into the area affected in order to do this. In addition Dr Pearce quotes from guidance which is over 32 years old which has been superseded by Health and Safety Guidance in particular the 2019 Public Health Protection in Radiation Emergencies[1]. Within this document is states 'Sheltering-in-place involves individuals going inside buildings, closing doors and windows, and turning off ventilation fans and air conditioning. The best protection is provided by solidly constructed and reasonably airtight buildings. As a stand-alone action, sheltering-in-place can Protective actions 7 be used to provide protection

1 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/805655/Advice_for_Radiation_Emergencies_2019.pdf

against external radiation from airborne gases and particles which have been deposited on the ground in inhabited areas'

The document states further that 'The health and wellbeing of sheltered populations may be affected by restricted access to medical care or assistance. In such situations, consideration should be given to supervised entry into the sheltered area by medical professionals and carers, or planned evacuation of these vulnerable groups. Residents of hospitals and nursing homes can face additional challenges, for example, sheltering-in-place without electrical power can be fatal for those dependent on modern technology such as ventilators. Therefore, if electrical power is lost, evacuation of the vulnerable groups is likely to be essential in such situations. Similarly, specific support and advice should be provided to farmers needing to tend livestock and those managing key infrastructure. Sheltering-in-place is not a long-term option and whilst it is potentially straightforward to implement, its use should ideally only be planned to last hours, and, at most, 1 or 2 days. In order to minimise the anxiety and stress created by advice to shelter, it is important to ensure communication with those sheltering is continuously maintained through appropriate communication channels. In particular, those sheltering-inplace for prolonged periods require reassurance that the advice has not changed and that those from whom they may be separated (for example, children at school, partners at work) are being properly cared for.'

Therefore current guidance at no time suggests doors etc should be opened.

It should also be noted that the Council has access to the subject matter experts such as UKHSA who use the generic guidance as detailed in documents such as the Public Health Protection in Radiation Emergencies and using their technical knowledge of the nuclear site provide the bespoke advice specific to the hazards and risk in order that the Off-Site Emergency Plan can be developed. This is what has happened in relation to the AWE Off-Site Emergency Plan.

As a result, like Para 156, I believe this is of real concern that this is being stated in the public domain, could put the public at risk and should therefore be discarded.

1.23 **Para 159:** Dr Pearce states that 'people should thoroughly ventilate their houses as soon as the release has stopped and contamination levels in the outside air have fallen' he also states 'This will occur in less than an hour for the whole of the Urgent Protection Action Zone in any non-calm weather conditions'.

This information is taken from a 32 year old document and is factually in correct in that there is no Urgent Protection Action 'Zone' and any advice to ventilate houses and other buildings will only be *issued based on data obtained at the time*.

1.24 **Para 160:** This para reiterated the 'reality' to be 'unnecessary to ask people to shelter for more than an hour or so after the explosion' and that 'they should ventilate their buildings'

This para is factually incorrect in that advice would be issued to remain in shelter whilst environmental monitoring is undertaken to confirm that contamination is at levels where there is sufficiently low hazard to lift sheltering. The advice *is not only based on time*.

The inaccuracies cause the Council significant concern in that they are being placed in the public domain and are one person's view rather than the experts from a wide range of agencies involved in the AWE Off-Site Emergency Plan development and response who have detailed knowledge of the site and the response activities. There is as a result of this commentary a risk of harm to people should they follow the advice of not strictly sheltering, opening doors and ventilating their house within an hour of being notified of the incident.

I would therefore recommend that this whole section 5.5.2. from Dr Pearce is discarded.

1.25 **Paras 164 - 166:** Dr Pearce states that 'The risk analysis behind this statement includes accidents involving chemicals.'

This is incorrect it did not include chemicals but was based on radiation emergencies.

Dr Pearce also states that 'I conclude that it is not credible that the proposed development site, 2.4km from AWE Burghfield compared to a potential urgent evacuation to 150 m and subsequent evacuation to 600 m, will need to be evacuated because of an event on the AWE Burghfield site.'

This is inaccurate in that it does not account for subsequent evacuation as a result of people not being able to shelter in the buildings they are in beyond 48hrs as per the

guidance Public Health Protection in Radiation Emergencies[2] and the advice given by UKHSA and the STAC at the time of the response and as demonstrated in my Proof of Evidence.

1.26 **Paras 168:** Dr Pearce states that 'Initial interest will be in tracking the plume and *discussing the needs* for urgent protective actions such as shelter but interest will turn towards environmental monitoring to inform any decontamination strategy'

This statement is incorrect since due to the release there will be only 25mins from start of incident to when people should be under shelter therefore the default urgent protective action is to shelter there will be no time in the initial phase to *discuss the needs* but a default precautionary action to get everyone into suitable shelter.

1.27 **Para 169:** Dr Pearce states that in relation to guidance in the 2023 booklet about removing clothing and having a shower is 'in my view this would primarily be for reassurance rather than making a material improvement in likely outcomes, particularly for those some distance from the site'.
In my opinion this is misguided in that the guidance issued in relation to self-decontamination, which is based on advice from UKHSA, follows the principle of keeping doses as Lows as Reasonably Practicable (ALARP).
Therefore Dr Pearce in his statement negates the aims of removing and reducing the impact on the community in the affected area therefore reducing the risk to public health and well-being.

1.28 **Para 170:** The statement made by Dr Pearce is factually correct but it is unclear why it is included.

It should be noted however that whilst the Fire and Rescue Service have these capabilities it is a national capability and not an unlimited supply of resources by way of equipment and fire service staff. In addition locations to undertake the decontamination need to be found, the water used removed to prevent contaminated water going into the sewer systems.

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2 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/805655/Advice_for_Radiation_Emergencies_2019.pdf

Therefore again a simple statement made but the reality is a lot more complex to put in place.

1.29 **Para 171, 172 and 173**: The statement made by Dr Pearce that 'the radiation levels predicted at the development site in the aftermath of an accident at AWE Burghfield are likely to be below those at which remedial decontamination action is likely to be required'

In my opinion, and that of UKHSA, this statement is flawed in that until the day a radiation emergency happens and the monitoring is undertaken the remedial/recovery actions cannot be fully predicted. In addition as stated in my Proof of Evidence what is not taken fully into account in the evidence provided by Dr Pearce is the 'fear' factor and assurances required from the community affected.

In addition as stated in Para 173 by Dr Pearce 'Some self-help decontamination, such as hosing of cars, pathways and garden furniture might be advised by the government. This would largely be for reassurance rather than making a real difference to dose uptake. External dose rates will be low as will doses due to resuspension and contamination of foodstuffs'.

In my opinion the self-help decontamination suggestions again are simplistic since any decontamination process needs to consider the knock on effects such as contaminant in the sewer system, any Personal Protective Equipment necessary to protect the people undertaking the activity. In addition, and following consultation with UKHSA, the statement in relation to residual doses cannot be stated with certainty until environmental monitoring is undertaken. The protective actions in the plan are based on a postulated scenario for planning purposes, to state 'will' infers that this is the scenario that 'will' happen. Emergency response activities will use pre-planned protective actions as a reasonable start state and adjust advice according to the situation as it unfolds.

Therefore again Dr Pearce is over simplifying what would be a complex data based response to a radiation emergency.

1.30 **Para 174**: Dr Pearce states that 'Monitoring of local residents themselves is not time critical'

I would totally disagree with this, as do UKHSA. There is a risk of mental health and wellbeing impacts due to the worry of being contaminated which can, in part, be mitigated by undertaking personal monitoring. Delaying this unnecessarily adds to these impacts.

1.31 **Para 175:** Dr Pearce refers to some options for decontamination but suggests that 'The above relates to land nearer to AWE (B) than the appeal site.'

In my opinion, and that of the experts at UKHSA, this is factually incorrect in that Dr Pearce does not know what the levels of contamination will be and therefore what decontamination will be required at the site or elsewhere within the DEPZ.

In addition in **Para 176 states that '**the presence of ground contamination might lead to a desire of some residents of the Proposed Development to relocate. However, any such desire does not affect the plan (and therefore does not require WBC to obtain or provide accommodation)'.

In my opinion this will affect the plan since those residents are very likely to need support to move out of the contaminated area, need support in their 'relocation' and assurances in relation to their property as detailed in my Proof of Evidence. Therefore I do not agree there would be no impact on the Council or other responders as a result. The comment made however does reiterate the points I have made about the 'fear' and wishing to leave the area.

Dr Pearce also states that 'the levels of ground contamination would be too low to justify relocation on a health basis.'

In my opinion this too is conjecture and does not take into account mental health implications.

1.32 **Paras 181 & 182: Dr Pearce states in para 182 that '**A small increment in the areas population, particularly one at 2 km from the site, would not add materially to the resources required for these steps to be taken'

In my opinion this statement is simplistic. There are many strands to be put in place to support peoples well-being as stated in Para 181 do not take into account the cumulative effect of a further 32 dwellings (77) people on top of those already in the

area by way of resources (equipment and people) and therefore the risk that peoples' health and well-being are placed at risk as a result. This is explained more in my Proof of Evidence Section 9.

1.33 **Para 186:** It is noted that Dr Pearce quotes a recent appeal decision in Wokingham Borough Councils area and it is noted that the Inspector stated "*Although fear of contamination may prevent workers from entering the DEPZ, this could be disproportionate to the actual risk*." He concluded that "*the proposal* (for 49 affordable dwellings within the DEPZ) *would not present a barrier to the ability of blue light services to safely carry out their duties, and nor would it affect the Council's ability to execute and manage its obligations under the REPPIR plan*".

I totally disagree with the comments made in that should workers not go into the contaminated are of the DEPZ then the lives of vulnerable people could be at risk. Some clients need visits up to 6 times a day with life dependency requirements and some have mental health challenges which when a routine is changed can have significant if not fatal consequences therefore for the Inspector to make such a comment is disappointing but no doubt based on the evidence provided. I would also refute the comment about an addition of 49 dwellings not presenting a barrier to the ability of the 'blue light services' to carry out their duties. The blue light services may not be so adversely affected but they will be affected and it needs to be noted that the blue light services are only 3 of at least 27 responders and therefore the implications on health services such as health workers, utility workers etc will be significant and therefore another 32 homes on top of those already there will have an adverse impact to the point that the health and wellbeing of others may be adversely affected. This will be the case regardless of the training and exercising programmes put in place due to turnover of staff within organisations.

1.34 **Para 188:** Dr Pearce makes reference to the AWE Aldermaston DEPZ and the number of properties associated with that area.

This is noted however similar to the AWE Burghfield site many of the properties within the DEPZ were in existence prior to 2001, many of them being ex MoD sites associated with the AWE site prior to being sold into private ownership. The Boundary Hall, Tadley application and subsequent appeal resulted in processes being put in place for both sites by way of consultation and criteria. There is absolutely no doubt in my opinion

that the plan and therefore the responders will be significantly stretched should the area of Tadley be affected with a radiation emergency.

Finally I would suggest that 'two wrongs do not make a right' in that the community of Tadley as it is was largely inherited by the Emergency Planning services from 2010 onwards and just because it has more densely populated communities close to the site boundary does not and should not be the 'excuse' to build more in the AWE Burghfield DEPZ and therefore potentially placing peoples' health and wellbeing at risk.

1.35 **Paras 190-194.** Dr Pearce's comments are noted in relation to the possibility that if everyone did as advised and sheltered then the road movements would be limited, and therefore anyone making a move would not have limited impact.

However any movement of vehicles has the additional risk of re-suspending any contamination, the main road outside the access route to the site is the main road between AWE (A) and AWE (B) and therefore it will not only be 'blue light' emergency responders but specialists from AWE who are likely to be using this main access route. In addition in there aspiration to get away from the area there is a risk that residents do not take the road towards the south and west but instead move towards the hazard.

In my opinion my arguments as to the potential impact of an additional 77 vehicles and their occupants, on top of any others which may decide to self-evacuate is a risk which should not be dismissed.

1.36 **General Commentary:** It is noted throughout the Proof of Evidence provided by Dr Pearce he appears to 'argue' the details in the Consequence Report and therefore the risks and likelihoods associated with it. Others are better placed than me to provide detail in relation to some of this. However in my opinion the regulators have overseen the process and if there was no risk or likelihood of a radiation emergency arising from an AWE site then the requirement placed on the Council under REPPIR 19 would not be necessary.

In addition I am concerned that Dr Pearce regularly refers to REPPIR 01, documents which are over 12 years old or superseded by new documents (NRPB 1990 has been replaced by Health & Safety Executive guidance) or references from Wikipedia (page 27 of 52) which in my opinion is confusing and often inappropriate to use out of date documents.

In addition it is noted that Dr Pearce also often uses circumstantial evidence and many assumptions which do not necessarily reflect accurately the current situation and confuses matters in relation to the facts – the impact of the proposed development on the AWE Off-Site Emergency plan, supporting plans and therefore responders and importantly the impact on the community in the short, medium and long term by way of health and wellbeing.

1.37 Other Matters

The Council has been emailed by Katherine Miles dated 19/05/2023 which raised a point of clarification on 7.12 of my proof. The email asked the following;

"*You refer in Para 7.12 of your Proof of Evidence in respect of this appeal to "the 2022 annual audit" of "planning applications approved but not built", however a copy of this audit is not within your evidence*."

The 2022 annual audit referred to is an internal working document on planning permissions built and granted. It is not a public audit but an interpretation of publically available data from planning permissions and the Councils interactive mapping system. The Council accepts the name of this document could have been clearer in the proof.

This information is publically available by compiling information on permissions granted, annual monitoring reports and our interactive map information. We are providing it for ease and clarity in our evidence but is all publically available. We attached this as **Appendix B.**