



Ref: EIR2023-045

[REDACTED]

19th April 2024

Dear [REDACTED]

Further to our previous correspondence regarding your request for the following information:

I am writing following receipt of attached responses from Wokingham Borough Council (20th July 2023) and the Department for Levelling Up, Housing and Communities (5th December 2023) confirming that an Environmental Impact Assessment (EIA) was required to support a planning application for the erection of up to 150 dwellings on land north of Church Lane and east of Three Mile Cross, Reading. The requests to these bodies for EIA Screening are attached and include a site location plan.

The attached responses from both the Council and the Government indicate that an EIA is required and that this should consider the potential health impacts for any residents in relation to risks at the Atomic Weapons Establishment (AWE) at Burghfield.

Alongside the responses of Wokingham Borough and the Department for Levelling Up, Housing and Communities to our original request concerning the potential of an EIA, I also attach (within the following WeTransfer link - <https://we.tl/t-hFJm5RGlyR>):

- *a copy of the Consequences Report (November 2019) prepared by AWE,*
- *the reports of West Berkshire's (12th March 2020 & 19th January 2023) concerning the "AWE Detailed Emergency Planning Zone", and*
- *the AWE Off-site Emergency Plan (Jan 2019 & August 2022).*

The planning appeal decisions referenced in the requests to Wokingham Borough and the Department for Levelling Up are also within the WeTransfer link.

In order to prepare the Environmental Statement, I am therefore requesting the following information pursuant to The Environmental Information Regulations 1992 (as amended) ([The Environmental Information Regulations 1992 \(legislation.gov.uk\)](http://www.legislation.gov.uk)) from each organisation consistent with Regulation 17 of the Environmental Impact Assessment Regulations 2017 (as amended) ([The Town and Country Planning \(Environmental Impact Assessment\) Regulations 2017 \(legislation.gov.uk\)](http://www.legislation.gov.uk)).

Whilst the requests are grouped under the name of the relevant organisation which I believe will hold the information (or are able to supply it), they are sent to all recipients for completeness and therefore all questions are posed to all recipients.

To Reading, West Berkshire and Wokingham Council's

- 1) *Details of each planning permission granted but not fully implemented at 1st April 2021 which will have increased the number of people living, working or visiting the area around the AWE facility at*



Burghfield. I also need to know what the increase in people will be for each of these schemes and whether they are within the Urgent Protective Actions zone defined in the Consequences Report of 2019, between the Urgent Protection Actions zone and the most recent Detailed Emergency Planning Zone (January 2023) or outside of the Detailed Emergency Planning Zone.

- 2) I also require the details of any planning permission granted since 1st April 2021 which will have increased the number of people living, working or visiting the area around the AWE facility at Burghfield. I also need to know what the increase in people will be for each of these permissions granted since 1st April 2021 and whether they are within the Urgent Protective Actions zone defined in the Consequences Report of 2019, between the Urgent Protection Actions zone and the most recent Detailed Emergency Planning Zone (January 2023) or outside of the Detailed Emergency Planning Zone*
- 3) Details of any pending planning application at the date used to as cut-off for planning permissions which could increase the number of people living, working or visiting the area around the AWE facility at Burghfield. As with other questions, what the increase in people within each zone (in UPA, between UPA and DEPZ) and outside of the DEPZ) would be if approved.*
- 4) Details of any application submitted since the cut off date for planning permissions which could increase the number of people living, working or visiting the area around the AWE facility at Burghfield. As with other questions, what the increase in people within each zone (in UPA, between UPA and DEPZ) and outside of the DEPZ) would be if approved. For this response, I would need to know what the period the list of applications covers.*

In providing the above responses, I need to know what is the most recent date that the list of permissions and or extent that they have been implemented goes to.

The above information is required in order to determine the baseline position of population around the AWE facility and alongside the nature of relevant schemes for cumulative assessments as required by Schedule 4 of the EIA Regulations. The 1st April 2021 date is listed as this enables a comparison with baseline information within the 2021 Census.

To West Berkshire Council specifically (in addition to above)

- 1) A copy of the most recent complete unredacted off-site emergency plan and report detailing the determining of the DEPZ (if not those attached to this request within the WeTransfer link).*
- 2) What plans, processes and people do you have to collate information coming in from the community with regards to the number of people sheltering and the medical, personal care and family issues they have brewing up?*
- 3) How will you use the information coming in to revise the initial guidance on sheltering throughout the DEPZ, e.g. in respect of limiting the area over which continued sheltering is advised?*
- 4) Concern has been expressed that the off-site plan could be stressed by the growing population around the AWE sites. What actions are you taking to strengthen the plan and response provisions to ensure that it remains fit for purpose into the future?*

To Thames Valley Police, South Central Ambulance, Royal Berks Hospital and Royal Berks Fire & Recue



- 1) *What plans do you have to manage (advice, select for monitoring, monitor, decontaminate) members of the public (a) potentially contaminated with plutonium or other alpha-emitters? and (b) worried but obviously unlikely to be contaminated?*
- 2) *What plans do you have for authorizing your staff to enter and operate within an area subject to shelter advise in the event of an incident?*
- 3) *What training do you provide to your staff to prepare them to respond appropriately to an incident at AWE Burghfield?*

To AWE

- 1) *Please provide records of any instances of category F(2) weather (the time it occurred, the wind direction and the duration. If stability category has not been recorded, then any records of instances of wind speeds below 2 m/s – when they occurred and how long they lasted.*
- 2) *Please provide information on who authorises the alert to be promulgated, who activates the telephone system, under what circumstances and how long it is likely to be from event initiation to declaration to alert.*
- 3) *Would it be feasible to use a siren to provide a more rapid promulgation of the alert to those near to the site and outside?*
- 4) *It is easy to assume that an “explosive distribution” is a no-notice, short term event. Is this the case?*
- 5) *Are there any faults that exceed the 7.5 mSv threshold that give a warning period?*
- 6) *Has the risk profile of the site changed significantly in the last 10 years?*
- 7) *Is the risk profile expected to change significantly in the next five, ten or twenty years. If so, can you outline the direction of travel.*
- 8) *Details of where the weather monitoring station is located which provides the real time information referenced on page 126 of the 2019 Off-site emergency plan.*
- 9) *Records of least the last year of weather conditions (including wind speeds, direction and frequency that it changes) from the weather monitoring station providing real time information.*
- 10) *If records from the site providing real time information are not available, then information on wind speeds, direction and frequency it changes together with the location of the monitoring station providing the data which informed the judgement over category F conditions referenced on page 3 of the Consequences Report. Details of the frequency of change is required as the Consequences Report (page 3) indicates that sheltering is an appropriate measure to limit risk following a release of material and need to know how much the wind speed and direction typically changes over any two day period.*
- 11) *Whether the AWE’s activation of the telephone warning system (2019 off-site plan, page 127) has the ability to include mobile alongside landline telephone numbers (mobile as a result of proximity to relevant base stations).*
- 12) *A copy of a plan at no more than 1:10,000 scale showing the extent of the UPA around AWE Burghfield (an enlarged version of the map 6 of the Consequences Report (provided in the WeTransfer link)).*
- 13) *A copy of the most up to date Off-site emergency plan and Consequences Report (if not those included in my request through the WeTransfer link)*

To AWE, MoD, ONR, UK HSA and HSE

- 1) *What is the assessed overall frequency of events that would lead to releases requiring the declaration of an offsite incident?*
- 2) *What is the assessed overall frequency of events that would require the evacuation of people from homes and businesses and how far downwind do the assessments show the potential need for urgent and subsequent evacuation?*
- 3) *What would be the radionuclide composition and physico-chemical form of the released material? What inhalation categories are assumed (using the categories F, M and S as defined in ICRP Publication 66, but detailing any non-standard parameterisation, e.g. to represent aerosols intermediate between ICRP classes).*
- 4) *How might the released inventory vary with the circumstances of the event? Is the UPAZ based on an upper bound of a variable potential release? If several different release sequences have been addressed, what were the magnitudes and time-courses of the releases for each release sequence? Specifically, what fraction of the total release is assumed to occur in each time interval following the declaration of the occurrence or anticipated occurrence of a release?*
- 5) *Is the release modelled as having initial momentum or thermal buoyancy due to explosion/temperature and/or initial volume resulting from the explosive distribution?*
- 6) *What release height is assumed? If momentum or thermal buoyancy is significant, how is this taken into account, e.g. by computing an effective release height?*
- 7) *Is the release treated as a point release or is building entrainment taken into account?*
- 8) *What assumptions are made about particle size distribution and settling velocity? Specifically, is a lognormal distribution of sizes of the released aerosol assumed? If so, what is the Activity Median Aerodynamic Diameter (AMAD) and the geometric standard deviation of the distribution?*
- 9) *Is the preferential deposition of larger particles during downwind dispersion taken into consideration?*
- 10) *Is dispersion modelled using a Gaussian Plume model or is a more complex model, such as ADMS, used? How is the model parameterised, e.g. in respect of windspeed, inversion height and roughness length?*
- 11) *How inhalable are the particles? Would a Covid-style face mask be expected to make a contribution to reducing inhalation dose?*
- 12) *How is deposition to soil and other surfaces modelled? For example, is a dry deposition velocity used? If so, what deposition velocities are adopted for different types of surface?*
- 13) *How is resuspension modelled, e.g. using a resuspension factor or a mass loading approach? Is the time-dependence of resuspension taken into account?*
- 14) *What capability exists to measure contamination in the environment? (Time to first measurement, sample throughput, minimum level of detection etc.) Specifically, how will contamination by alpha emitters be quantified both for hard surfaces and for soils? Are there any useful measurements that can be made in field conditions, or will reliance be entirely on radiochemical procedures undertaken in laboratory conditions?*

This information is required to know the nature of any release which could impact upon human health and has informed the decision of the Council and Department for Levelling Up that an EIA is required.

To HSE, UK HSA and Department for Levelling Up

- 1) *Details of any research undertaken and the results (including effectiveness of reduction) regarding the ability of different building/construction materials to reduce alpha, beta or gamma*



particles/waves arising from nuclear material. This would include different types of glass for windows alongside those used to construct wall and roofs.

Overall conclusions

As detailed, these requests have been submitted in order to inform the preparation of the EIA for the development which taking account of the screening decisions is to be focused around potential human health impacts as a result of proximity to AWE Burghfield.

If you require clarification of the nature of any part of these requests, please contact me. Furthermore, if you require the other files through an alternative file transfer system, please let me know and what different solutions could be used.

I would be grateful if you could acknowledge receipt and provide me with an indication of when a response to the questions will be provided.

Your request has been handled as a request for information under the Environmental Information Regulations 2004 ("EIR").

A search for the requested information within AWE plc ("AWE") has now been completed, and we can confirm that some information in scope of your request is held.

You have asked that all of the recipients to this email answer all of the questions. AWE have not answered the questions which are under headings which do not include AWE. These questions are for the other public authorities to answer and AWE can confirm that it does not hold information to those questions.

Each question addressed specifically to AWE will now be addressed in turn.

- 1) *Please provide records of any instances of category F(2) weather (the time it occurred, the wind direction and the duration. If stability category has not been recorded, then any records of instances of wind speeds below 2 m/s – when they occurred and how long they lasted.*

Response

Regulation 12(4)(b) of EIR provides that a public authority may refuse to disclose information to the extent that the request for information is manifestly unreasonable. "Manifestly" means that there must be an obvious or clear quality to the unreasonableness. There are over 10,000 files on a stand-alone system, therefore processing this request will cause both a disproportionate cost and burden, as well as an unjustified level of distress and disruption to the daily responsibilities to the small team working in this area of the business to retrieve and process the data for release.

- 2) *Please provide information on who authorises the alert to be promulgated, who activates the telephone system, under what circumstances and how long it is likely to be from event initiation to declaration to alert.*



Response

The alert is promulgated by the AWE Emergency Manager, the circumstances are in accordance with REPPiR (Radiation Emergency Preparedness and Public Information Regulations 2019) guidance and the duration from event initiation is variable.

Regulation 9 of the EIR places a duty on public authorities to provide advice and assistance to applicants, therefore, it might be helpful to you if we provide the link:

https://www.westberks.gov.uk/media/39234/AWE-Public-Information-booklet-2023/pdf/20230511-WBC_REPPiR_booklet_A5.pdf?m=1683879802523

- 3) *Would it be feasible to use a siren to provide a more rapid promulgation of the alert to those near to the site and outside?*

Response

AWE does not hold recorded information to be able to provide a response to this question.

However, regulation 9 of the EIR places a duty on public authorities to provide advice and assistance to applicants, therefore, it might be helpful to advise that AWE's Emergency Response Plan has been carefully developed under the scrutiny of the Office for Nuclear Regulation (ONR), following all statutory requirements and relevant best practice guidance. It is also tested and kept under review, ensuring it is as effective as possible.

- 4) *It is easy to assume that an "explosive distribution" is a no-notice, short term event. Is this the case?*

Response

The explosive detonation is a no notice short term event. Our answer is based on the assumption that you are referring to the reference to an explosive detonation in the AWE Consequences Report which can be accessed here - https://www.westberks.gov.uk/media/48825/AWE-Burghfield-Consequences-Report/pdf/REPPiR_B-Site_ConsequencesReport_web_version1.pdf?m=1590070210537

- 5) *Are there any faults that exceed the 7.5 mSv threshold that give a warning period?*

Response

This information is classified and therefore exempt from disclosure under Regulation 12(5)(a) of EIR as disclosure would adversely affect defence and national security. A public interest test has been completed and determined that the information is withheld due to the sensitive nature of its content. Under Regulation 9, advice and assistance it may be helpful for your understanding if we refer you to the reasoning provided by Hon Mrs Justice Thornton at [129] [High Court Judgment Template \(westberks.gov.uk\)](https://www.westberks.gov.uk/media/48825/AWE-Burghfield-Consequences-Report/pdf/REPPiR_B-Site_ConsequencesReport_web_version1.pdf?m=1590070210537) where she explains the refusal of a disclosure request.

- 6) *Has the risk profile of the site changed significantly in the last 10 years?*

Response

Details informing the risk profile of AWE sites are classified and therefore exempt from disclosure under Regulation 12(5)(a) of EIR as disclosure would adversely affect the defence and national security of the United Kingdom (UK). A public interest test has been completed and determined that the information is withheld due to the sensitive nature of its content; there has not been a change in the inventory of materials, nor a change in operations carried out at AWE Burghfield.

- 7) *Is the risk profile expected to change significantly in the next five, ten or twenty years. If so, can you outline the direction of travel.*

Response

The risk profile may change over 5, 10 or 20 years. It will reflect AWE's approach to supporting CASD and requests from DNO at all times.

- 8) *Details of where the weather monitoring station is located which provides the real time information referenced on page 126 of the 2019 Off-site emergency plan.*

Response

The detail of our on-site weather monitoring location is classified and exempt under regulation 12(5)(a) of EIR as disclosure would adversely affect the defence and national security of the UK.

A public interest test has been completed and determined that the information is withheld as providing location detail such as this at AWE could help adversaries build up a picture of the site, allowing them to identify various locations and facilities. Site profiling can be developed when this apparently innocuous information is used in conjunction with other widely available data, such as aerial maps, ordnance survey information and answers to PQs on building projects at AWE. By a process of elimination, a determined individual or body would be likely to be able to ascertain where the more sensitive areas of the site are located. Any disruption to the activities undertaken at AWE would ultimately impact on CASD (The Continuous At Sea Deterrent), and consequently the ability to safeguard national security.

- 9) *Records of least the last year of weather conditions (including wind speeds, direction and frequency that it changes) from the weather monitoring station providing real time information.*

Response

Regulation 12(4)(b) of EIR provides that a public authority may refuse to disclose information to the extent that the request for information is manifestly unreasonable. "Manifestly" means that there must be an obvious or clear quality to the unreasonableness. There are over 10,000 files on a stand-alone system, therefore processing this request will cause both a disproportionate cost and burden, as well as an unjustified level of distress and disruption to the daily responsibilities to the small team working in this area of the business to retrieve and process the data for release.

- 10) *If records from the site providing real time information are not available, then information on wind speeds, direction and frequency it changes together with the location of the monitoring station providing the data which informed the judgement over category F conditions referenced on page 3 of the Consequences Report. Details of the frequency of change is required as the Consequences Report (page 3) indicates that sheltering is an appropriate measure to limit risk following a release of material and need to know how much the wind speed and direction typically changes over any two day period.*

Response

The judgment to use category F weather was taken from nuclear industry publications. Regulation 9 of the EIR places a duty on public authorities to provide advice and assistance to applicants, therefore, it might be helpful to advise that real time on site weather data as well as data from the Met Office will be collected at the time of a radiation emergency in accordance with the procedures set out in both the AWE on site and off site emergency plans in order to advise on the on-going requirement for sheltering in the event of an actual emergency. Advice on the need for on-going sheltering during an emergency will be provide by the Scientific and Technical Advisory Cell (STAC) set up under the AWE off-site emergency plan.

- 11) *Whether the AWE's activation of the telephone warning system (2019 off-site plan, page 127) has the ability to include mobile alongside landline telephone numbers (mobile as a result of proximity to relevant base stations).*



Response

AWE does not hold recorded information to be able to provide a response to this question. However, regulation 9 of the EIR places a duty on public authorities to provide advice and assistance to applicants, therefore, it might be helpful to advise that the management of the telephone warning system at AWE is the responsibility of West Berkshire District Council.

- 12) *A copy of a plan at no more than 1:10,000 scale showing the extent of the UPA around AWE Burghfield (an enlarged version of the map 6 of the Consequences Report (provided in the WeTransfer link)).*

Response

AWE does not hold recorded information to be able to provide a response to this question. However, under regulation 9; advice and assistance, it might be helpful to advise you that a map is available showing the UPA on a plan in the AWE Consequences Report which is in the public domain on West Berkshire Council's website. [Atomic Weapons Establishment \(AWE\) - West Berkshire Council](#).

- 13) *A copy of the most up to date Off-site emergency plan and Consequences Report (if not those included in my request through the WeTransfer link)*

Response

The most up to date version of the AWE Consequences Reports are accessible on West Berkshire Council's website - Atomic Weapons Establishment (AWE) - West Berkshire Council. The reports are dated 2019 and have not been updated since this time as explained in the Declaration of No Change dated November 2022 - also available on West Berkshire Council's website.

AWE does not hold recorded information to be able to provide the most up to date version of the Off-site emergency plan, as requested, however, regulation 9 of the EIR places a duty on public authorities to provide advice and assistance to applicants, therefore, we can advise you that the most up to date Consequences Reports are accessible on West Berkshire Council's website - [Atomic Weapons Establishment \(AWE\) - West Berkshire Council](#) and a [copy of the Off-Site Emergency Plan from West Berkshire Council dated August 2022 can be accessed here - Part 1 \(westberks.gov.uk\)](#).

Questions addressed to AWE and Others

- 1) *What is the assessed overall frequency of events that would lead to releases requiring the declaration of an offsite incident?*

Response

The total frequency is classified and therefore exempt from disclosure under Regulation 12(5)(a) of EIR as disclosure would adversely affect the defence and national security of the UK. A public interest test has been completed and determined that the information is withheld due to the sensitive nature of its content. Under Regulation 9, advice and assistance it may be helpful to advise that the overall assessed frequency of events qualifies under the criteria provided in the Approved Code of Practice for REPPiR 2019.

- 2) *What is the assessed overall frequency of events that would require the evacuation of people from homes and businesses and how far downwind do the assessments show the potential need for urgent and subsequent evacuation?*

Response



AWE does not hold any recorded information to be able to provide a response to this question. However, under regulation 9; advice and assistance, it might be helpful to advise you that: AWE recommends shelter and not evacuation as an urgent protective action, following the requirements for urgent protective action as set out in REPPiR 2019. For information about emergency response which is not an urgent protective action in the AWE Consequence Report, we refer you to West Berkshire Council and their Off-Site Emergency Plan. Please see link: [Part 1 \(westberks.gov.uk\)](http://Part 1 (westberks.gov.uk))

- 3) *What would be the radionuclide composition and physico-chemical form of the released material? What inhalation categories are assumed (using the categories F, M and S as defined in ICRP Publication 66, but detailing any non-standard parameterisation, e.g. to represent aerosols intermediate between ICRP classes).*

Response

Plutonium oxide. Lung clearance category has been taken from ICRP, (International Committee for Radiological Protection).

- 4) *How might the released inventory vary with the circumstances of the event? Is the UPAZ based on an upper bound of a variable potential release? If several different release sequences have been addressed, what were the magnitudes and time-courses of the releases for each release sequence? Specifically, what fraction of the total release is assumed to occur in each time interval following the declaration of the occurrence or anticipated occurrence of a release?*

Response

This information is classified and therefore exempt from disclosure under Regulation 12(5)(a) of EIR as disclosure would adversely affect the defence and national security of the United Kingdom. A public interest test has been completed and determined that the information is withheld due to the sensitive nature of the content. Under Regulation 9, advice and assistance it may be helpful to advise that the release event has been stated to be an explosively driven release within a contained building.

- 5) *Is the release modelled as having initial momentum or thermal buoyancy due to explosion/temperature and/or initial volume resulting from the explosive distribution?*

Response

This information is classified and therefore exempt from disclosure under Regulation 12(5)(a) of EIR as disclosure would adversely affect the defence and national security of the UK. A public interest test has been completed and determined that the information is withheld due to the highly sensitive nature of its content. Under Regulation 9, advice and assistance, it may be helpful to advise that AWE have used codes models and scenarios over the last few years and have modelled explosive and nuclear releases which tend to have their own cloud rise algorithm, release fraction and particle size distributions based on historical or contemporary trials; laboratory or modelling data. These models have been validated and verified and interrogated by ONR.

- 6) *What release height is assumed? If momentum or thermal buoyancy is significant, how is this taken into account, e.g. by computing an effective release height?*

Response

We can confirm that AWE holds this data, however, this information is classified and therefore exempt from disclosure under Regulation 12(5)(a) of EIR as disclosure would adversely affect defence and national security of the UK. A public interest test has been completed and determined that the information is withheld due to the highly sensitive nature of its content. Under Regulation 9, advice and



assistance it may be helpful to advise that the actual release height is determined by the energy release and the environmental conditions.

7) *Is the release treated as a point release or is building entrainment taken into account?*

Response

Building entrainment is accounted for as relevant to each portion of the 2-day release. All scenarios have a geometry dependent on their release characteristics.

8) *What assumptions are made about particle size distribution and settling velocity? Specifically, is a lognormal distribution of sizes of the released aerosol assumed? If so, what is the Activity Median Aerodynamic Diameter (AMAD) and the geometric standard deviation of the distribution?*

Response

This information is classified and therefore exempt from disclosure under Regulation 12(5)(a) of EIR as disclosure would adversely affect defence and national security, any information of this nature can be used to back-track (reverse engineer) to estimate throughput or the size of the UK CASD stockpile. A public interest test has been completed and determined that the information is withheld due to the highly sensitive nature of its content. However, under regulation 9; advice and assistance, it might be helpful to advise you that the models used by AWE have their own cloud rise algorithm, release fraction and particle size distributions based on historical and contemporary trails, or modelling data. They have been validated and verified and internationally accepted by relevant peer organisations. AWE's results have been scrutinised by ONR.

9) *Is the preferential deposition of larger particles during downwind dispersion taken into consideration?*

Response

This information is classified and therefore exempt from disclosure under Regulation 12(5)(a) of EIR as disclosure would adversely affect defence and national security. A public interest test has been completed and determined that the information is withheld due to the highly sensitive nature of its content. However, under regulation 9; advice and assistance, it might be helpful to advise you that: In general deposition is based on particle size in all models and the most sophisticated model can also take account for land cover.

10) *Is dispersion modelled using a Gaussian Plume model or is a more complex model, such as ADMS, used? How is the model parameterised, e.g. in respect of windspeed, inversion height and roughness length?*

Response

This information is classified and therefore exempt from disclosure under Regulation 12(5)(a) of EIR as disclosure would adversely affect defence and national security. A public interest test has been completed and determined that the information is withheld due to the highly sensitive nature of its content, any disclosure of the plume models would be highly useful to hostile state nation or individual enabling them to back-track (reverse engineer) in order to estimate throughput or the size of the UK CASD stockpile. However, under regulation 9; advice and assistance, it might be helpful to advise you that: Dispersion estimates are based on codes that have been internationally verified and validated.

11) *How inhalable are the particles? Would a Covid-style face mask be expected to make a contribution to reducing inhalation dose?*

Response



AWE does not hold the data to be able to provide a response to this question. Regulation 12(4)(a) of EIR, which relates to information which is not held at the time when an applicant's request is received applies to the information you have requested. However, under regulation 9; advice and assistance, it might be helpful to advise you to request the data from UKHSA (United Kingdom Health Security Agency.) [UK Health Security Agency - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

12) How is deposition to soil and other surfaces modelled? For example, is a dry deposition velocity used? If so, what deposition velocities are adopted for different types of surface?

Response

This information is classified and therefore exempt from disclosure under Regulation 12(5)(a) as disclosure would adversely affect the defence and national security of the United Kingdom. A public interest test has been completed and determined that the information is withheld due to the highly sensitive nature of its content. However, under regulation 9; advice and assistance, it might be helpful to advise you that: In general deposition is based on particle size in all models and the most sophisticated model can also take account for land cover.

13) How is resuspension modelled, e.g. using a resuspension factor or a mass loading approach? Is the time-dependence of resuspension taken into account?

Response

Resuspension modelling has used the NRPB (National Radiation Protection Board) now UKHSA resuspension factor model, as detailed in their own documents. Time dependence is taken into account. However the detailed information is classified and therefore exempt from disclosure under Regulation 12(5)(a) as disclosure would adversely affect the defence and national security of the United Kingdom. A public interest test has been completed and determined that the information is withheld due to the highly sensitive nature of its content; any disclosure of deposition modelling would be highly useful to a hostile state nation or individual to back-track (reverse engineer) in order to understand warhead design.

14) What capability exists to measure contamination in the environment? (Time to first measurement, sample throughput, minimum level of detection etc.) Specifically, how will contamination by alpha emitters be quantified both for hard surfaces and for soils? Are there any useful measurements that can be made in field conditions, or will reliance be entirely on radiochemical procedures undertaken in laboratory conditions?

Response

AWE does not hold the data to be able to provide a response to this question. The exception at Regulation 12(4)(a) of the EIRs, which relates to information which is not held at the time when an applicant's request is received applies to the information you have requested. However, under regulation 9; advice and assistance, it might be helpful to advise you to request the data from UKHSA (United Kingdom Health Security Agency.) [UK Health Security Agency - GOV.UK \(www.gov.uk\)](http://www.gov.uk).

Please remember to quote the reference number above in any future communications. If you have any queries regarding the content of this letter, please contact this office in the first instance.



Aldermaston ▪ Reading
Berkshire ▪ RG7 4PR

www.awe.co.uk

If you are unhappy with the way your request has been handled you have a right to request an internal review within 40 days of receiving this letter, by writing to information.requests@awe.co.uk or our postal address: Information Requests Team, AWE Aldermaston, Reading, RG7 4PR. If you are still unhappy after an internal review has been completed, under the provisions of Section 50 of the Freedom of Information Act 2000 and Regulation 18 of EIR you have the right to take your complaint to the Information Commissioner's Office. Please note the Commissioner will generally not consider a complaint until you have exhausted AWE's internal complaints process.

Yours sincerely,

AWE Information Requests Team