



In respect of a permit application to operate a 'moving grate' incinerator in Westbury, Wiltshire
Environmental permit consultation mailed to: PSCpublicresponse@environment-agency.gov.uk

Proposed site:

BA13 4WE, Northacre Renewable Energy Limited - EPR/CP3803LV/A001:

Northacre Facility - Northacre Industrial Estate - Northacre Facility Stephenson Road
Forbury Court - BA13 4WE – ***Directly adjacent to the town of Westbury (Population 18,000)***



Image: Photomontage from applicant NREL



Image: Actual site in relation to the Town of Westbury, it's topography / escarpment etc.

Dear Sir / Madam

We note and respect the categories of relevance regarding this application and have endeavoured to not deviate from these. As a group representing more than 1,500 members of our community, we are only too aware of the impact that your decision could have for our town and wider region and we would recommend that you REFUSE this application for an operational permit. Thank you!

WGAG / NWI westburygag@gmail.com

Categories of relevance:

- Relevant environmental regulatory requirements and technical standards.
- Information on local population and sensitive sites.
- Comments on whether the right process is being used for the activity, for example whether the technology is the right one.
- The shape and use of the land around the site in terms of its potential impact, whether that impact is acceptable and what pollution control or abatement may be required.
- The impact of noise and odour from traffic on site.
- Permit conditions by providing information that we have not been made aware of in the application, or by correcting incorrect information in the application (e.g. monitoring and techniques to control pollution).

Ecological effects. Lack of accurate and relevant scientific evidence in modelling.

The applicant has commissioned Argus Ecology to produce an interpretation of the likely effects of incineration on the local ecology of ancient woodlands and Salisbury Plain special protected areas and SSSIs. (see Technical Appendix 8.5 with the planning application).

The Argus interpretation of effects relies entirely on the emissions modelling data provided by Fichtner's Emissions Modelling report in Technical Appendix 8.3. Their reasons for screening out large areas of the Plain are vague and, in our opinion should be challenged.

The rare calcareous grasslands of Salisbury Plain are highly protected by environmental law. There is no assessment of the effects of nitrogen deposits over 20+ years of incineration on this fragile ecosystem.

The applicant's (Fichtner's) modelling is based on meteorological data for Lyneham which is some 30km from Westbury with a different elevation and topology and therefore cannot provide an accurate assessment of likely effects. (see pictures at head of document for actual topography)

Why has the applicant not provided Fichtner with local meteorological data for Westbury? NREL has applied to build various waste incineration facilities in Westbury over a period of more than six years. They have had plenty of time in which to gather specific meteorological data for Westbury, as have Wiltshire Council. We believe that their permit for the existing MBT plant requires the collection of some data since they have an anemometer on the building. Other local manufacturing facilities with environmental permits, local airfields or the MOD must have much more local data for wind direction and speed, rainfall etc. which would be more accurate than that from Lyneham.

Argus Ecology's Ecological Interpretation relies entirely on Fichtner's air quality emissions modelling and Fichtner's 'Stack Source data' in Table 8 of Technical appendix 8.3. Fichtner do not say where this Stack data comes from.

Is it based on a catch-all standard model for all kinds of incinerator and if so, how reliable is this?

Metrological data & atmospheric / temperature inversion

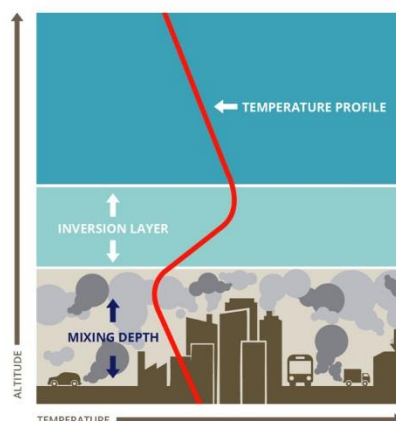
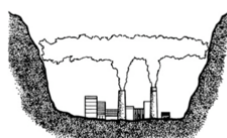
in relation to actual terrain / topography:

As already noted, the Air quality report is based on met data from Lyneham, about 20 miles away on the flat, whereas Westbury lies in the valley with steep escarpment up to Salisbury plain. (see header and foot images) This topography results in events of temperature inversion and plume grounding.

See here: <https://enviraiot.com/what-is-thermal-inversion-how-is-it-related-to-pollution/>

Atmospheric Effects on the Dispersion of Air Pollution

Other factors that can affect the dispersion of air pollutants in the atmosphere include topographical (terrain) influences and the presence (or lack) of **atmospheric inversions**, which inhibit the spread of pollution by placing a 'lid' on the vertical extent of mixing (i.e., the height of the mixing 'box'). During intense inversions, the air above is warmer than the air below it, thus inhibiting any upward motion of the colder air, which tends to then sink back down and stay below the lid. One extreme example of these two influences is shown in Figure 3, in which the pollution is released in a valley that has an inversion lid holding the pollution down.



What Causes a Temperature Inversion?

Temperature inversions don't have a specific cause; rather, a range of factors contribute to the development of a thermal inversion. These factors include:

- 1 Topography** - Cold air can sink into low areas, like valleys, settling below layers of warm air and intensifying the inversion.
- 2 Time** - Thermal inversions occur during the evening, when the land begins to cool. The earth's surface no longer radiates as much heat, enabling air near the surface to cool faster than the air above, forming an inversion.
- 3 Season** - Inversion events have the time necessary to develop during the winter months, when nights are at their longest. Likewise, the land does not absorb as much heat from winter's weak sunlight, making air near the surface relatively cooler.
- 4 Wind** - Moderate to strong winds help mix layers of cold and warm air, preventing the segmentation of a temperature inversion. With weak winds, thermal inversions are much more likely to occur.

This was experienced frequently when cement factory was operating in Westbury. High chimneys are meant to send fumes up into the sky and disperse over a large area, diluting the poisonous emissions. During 'inversion' however, the plume comes out of the chimney horizontally and if the wind blows in the direction of the escarpment, the undiluted plume hits the residential area on the high ground - Newtown, The Butts, Studland Park, Upland Rise and Whiteland Rise. The plume then lowers into the low-lying areas along the main road. This event of 'plume grounding' has largely been ignored by the 'Applicant', who only considered then plume when visible and

ignored the 96% of the time when the plume was invisible:

See full 'response to questions' document here:

<https://www.hills-group.co.uk/wp-content/uploads/2018/05/Response-to-Questions-FOE.pdf>

With no adequate and locally based plume grounding model, it is impossible to assess the health risks to local population and Westbury AQMA.

As the Blue circle / La Farge cement works operated in Westbury for 42 years, the residents are well qualified to confirm these historical events and they correctly worry again for the future.

Wilts Public Health dept were aware of this and the Director of Public health at the time was working with local GPs regarding the health effects of the cement works.

There is no monitoring planned for the above-mentioned areas of the town.

The applicant was made aware of the erroneous modelling when the first incinerator plan was put forward, but the applicant has not sought to find more suitable MET location for their assessments.

Noise:

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1.Baseline Noise Data
2.Source of Noise
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1. Baseline Noise Data

Throughout the NREL report, resultant noise levels are calculated against background or baseline noise levels. Noise generated from a piece of equipment is assessed as being significant or not and is compared with the background (baseline) noise level and a resultant plus or minus level is quoted.

An example from the NREL report, clause 7.5.29 table 7.24:

Location: Brook Cottage

Night time

Predicted noise level 33dB

Assessed baseline noise level 27dB

Noise change +5.5dB

This change in noise level is based on the difference between the two noise levels and in this case, there is an increase of 5.5dB. Thus, the importance of correct baseline noise levels is shown, as indeed is the predicted noise

level. Neither are guaranteed to be actual levels and can be affected by many different factors.¹

NREL's 49 page report on Noise and Vibration in which baseline levels of background noise are calculated, are based on historical data (due to COVID-19 restrictions and the assumption that this application is an amendment to a previously approved application).

Extracts read:

"7.3.21 The baseline levels have been based on historical data due to the restrictions on movement and effective operation of local businesses and therefore any update has not been possible. The historical data however is based on agreed positions and methodology.

7.4.2 Due to the restriction of movement and operation of business during the Covid 19 period, the above baseline sound survey study work is considered to be appropriate to reference as this was carried out in the vicinity of the Site, to determine existing representative background and residual sound levels for a similar facility and the latest survey was undertaken less than 2 years ago.

7.4.1 The following sources of data have been used in order to support and undertake analysis of baseline levels and noise predictions: a) Baseline sound data from a survey undertaken in October 2014 by Enzygo for the planning submission for the proposed Gasification Facility (planning consent ref. 14/12003/WCM). b) Baseline sound data from a survey undertaken."

And similarly:

7.4.2 states: "survey work is considered to be appropriate".

1

For clarity I have omitted the quoted units for the noise levels which are quoted as LAeqdB 15mins.

This is

the average noise over a 15 min. period and may be more or less than the value predicted.

7.3.21 states: "any update has not been possible"

7.4.1 states: "Baseline sound data from a survey undertaken in October 2014

Comment: COVID 19 restrictions apply to all and everybody, both private and professional. However, with a proposal of this magnitude, assumptions and calculations based on historical data or made during 'lockdown' cannot be considered acceptable or typical.

Until NREL's consultant can present contemporary, reliable information to enable the planning authority to make an informed decision on the proposal, this application should not be considered further.

2. Source of Noise

Noise from the proposal will be generated from many different sources including the following:

- "Air cooled condenser fans operating at an overall sound power level of 97dB(A) (6 fans at 89dBW each fan).
- Fan stack & roof vents reduced by a further sound power level of

88dB(A)

- At flue exit point of stack and vent.
- Turbine air cooler fans – overall sound power level of all fans operating designed to a level of 88dB(A).
- Conveyor enclosed to a design level of 65dB(A) @ 1m along its length from Northacre Facility to MBT.
- Site operating traffic.”

The report states that HGVs delivering and collecting from the plant and mobile plant vehicles not fitted with non-tonal reversing alarms (i.e. broadband type noise alarms) are a source of repetitive and irritating noise. The developer has assumed noise levels based on actual noise levels measured at other similar sites in the UK and from advice provided from “Technology Providers” who are involved in the detailed design of such developments. These noise levels as such are not true, accurate measurements of the proposal, they are assumed noise levels and should be treated with caution, rather than accepted as read by the Planning Authority.

To mitigate these noise levels the developer is proposing to use acoustic materials and devices in order to reduce the figures. However, there will be numerous times when doors are open, vehicles are used with tonal warning devices (as currently) and changing atmospheric conditions, resulting in sound transmissions above those predicted in the report.

No mention is made of the close proximity of the Arla milk factory which has a vertical 50 metre high hard surface wall some 30 metres from the Air Cooler Condenser (ACC) structure. Noise from the ACC could be reflected, setting up an echo and amplification of the noise from the 6 large cooling fans of the condenser. Tests should be undertaken to replicate this situation.

To put things in perspective, the noise generated from the ACC is 6 fans at 89dB(A) each, creating an overall (predicted) noise level of approx. 97dB(A). The sound of a Boeing 737 or DC-9 aircraft at one nautical mile (6080 ft) before landing is measured at 97dB.

The report uses terms like predicted, assumed inherent, library data, similar plant, assumed inherent mitigation, throughout, which should be taken into consideration when the proposal is debated.

3. Equipment with High Noise Emissions

This proposal is a 243,000 tonnes a year power generating station with an electrical output to the national grid of some 28.6 MW (predicted). This is the size of a small power station and consists of very substantial structures, two of which are:

1. A 160 metre (500ft approx.) long conveyor mounted 22.38m high at its highest point.
2. An Air Cooled Condenser structure 37m x 30m approx. mounted on stilts and standing 10m approx. above ground level. (N.B. as scaled from the submitted drawings).

The high level conveyor noise level of 65dBA is judged to be ‘not significant’.

“The conveyor has a high level of attenuation and is completely enclosed.” However, without these attenuation measures it is a source of major noise should the system fail in any way.

Regarding the ACC this is an enormous structure approximated to 3/4 the footprint of Westbury’s Lidl supermarket. The top of the structure stands some 23 metres (75.4ft) above ground level. It has 6 giant axial fans each of approx. 12ft diameter.

Low pressure steam exhausted from the turbine is fed to the ACC, cooled and returned as feed water for the steam boiler. The noise generated from the six fans is 99.87dBA, a very significant figure.

The developer plans to erect a Wind Screen above the fans with a predicted sound pressure level of 97SWL. These 6 giant fans will be running 24 hours, 7 days a week.

The figure of 97SWL (Sound Power Level) of the fans can be translated to the more familiar dBA (decibels) with logarithmic mathematics. However, more simply the value of 97SWL equates to the following:

100 SWL.....Blaring radio

90 SWLVoice, sustained shouting.2

4. Summary

Objections to this application should be raised on the following grounds:

- The applicant’s 49 page report on noise and vibration is very scientific and technical in nature and a very specialist subject and it will be difficult for any layman to understand or indeed Wiltshire Council’s planning department. The authority should submit this document to an expert in Acoustics for evaluation before a decision is made.
- Baseline noise levels based on historical data and assumptions cannot be valid. If the developer is unable to produce contemporary data due to COVID 19 restrictions, then the application should be refused or deferred until this up-to-date data can be obtained.
- The developer has assumed noise levels based on actual noise levels measured at other similar sites in the UK and from advice provided from Technology Providers, who are involved in the detailed design of such developments. These noise levels as such are not true, accurate measurements of the proposal, they are assumed noise levels and should be treated with caution and challenged by the Planning Authority.
- The developer has quoted the following comparison between daytime and night-time operational noise levels:
“it can be seen that the magnitude of the impact during night-time periods (final column of table) shows that the maximum change in noise level is +3.5dB LAeq which indicates slight magnitude of impact. The predicted level of effect would therefore be minor and not significant”
“Table 7.29: Predicted Cumulative Noise Levels from the Northacre Facility

& Permitted WTS Facility during Daytime Receptor Position (The above
2 Woods Practical Guide to Fan Engineering, BB Daly, 3rd Edition

table shows a negligible to slight impact in terms of
BS4142:2014+A1:2019 (ref. Table 7.11) and negligible impact relating to
residual sound levels (i.e. ref. Table 7.12). The cumulative effect is
therefore neutral to minor and not significant”.

The increase in noise level at night is predicted to be +3.5dBA LAeq
and its effect is ‘minor and not significant’, according to the report.
However, the unit of measurement quoted is very important, as it
represents an average value over a period of time. And it is important
to note that the night-time period is quoted as 15 minutes, compared
to one hour during the day. Of course, an average over 15 minutes
could give an entirely different final figure. Why has the applicant
measured the night-time noise over a much shorter time period?

- The applicant should be asked to clarify and justify all of these
important points, in particular how frequently the doors will be
opened during the operating hours. The application combines
operations with that of the adjacent MBT. However it would appear
that no attempt has been made to include the noise already generated
from the MBT, including as currently experienced, the constant
bleeping of reversing vehicles and the metallic grating of skips being
dragged along the ground, audible from all over Westbury.

Straightforward numbers on the scale of HGV’s are Missing

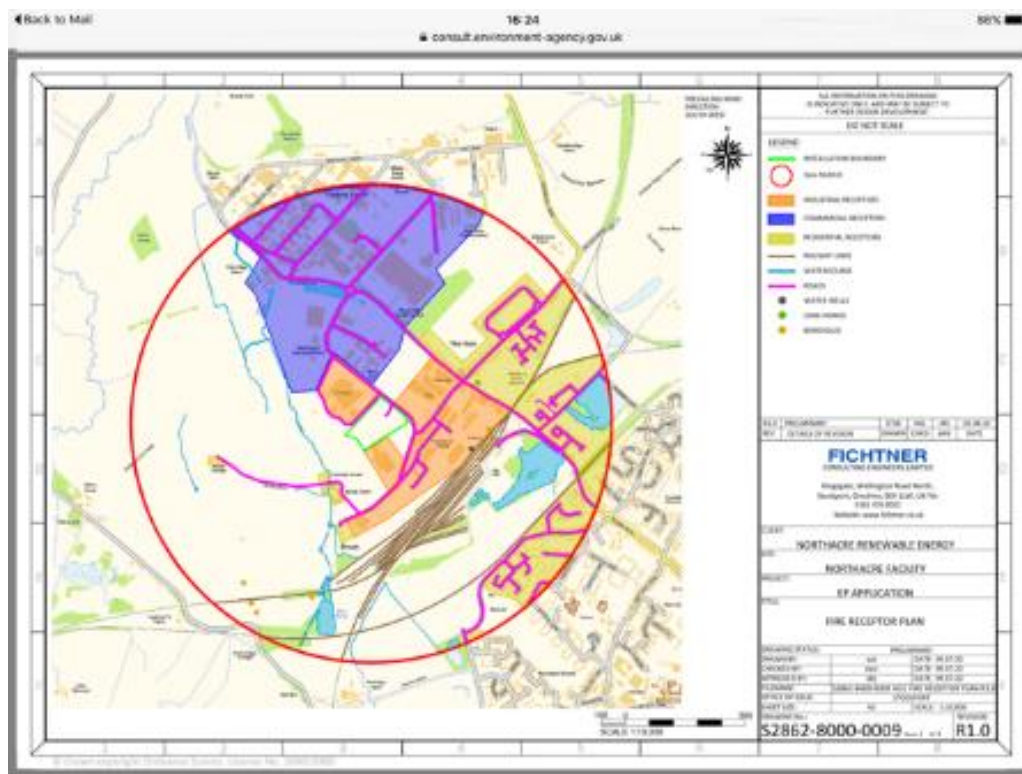
It would seem a simple request, but since Hills first applied to build an incinerator on 22 December
2014, the Company has been very reluctant to publish clear straight forward numbers of HGVs
involved in transporting materials for all subsequent incinerators, using instead complicated
comparisons which usually concluded that there would be no, or ‘hardly any’ changes in traffic
volume.

This left the residents trying to work it out by comparing with other incinerators with the same
technology but with more transparent information available. Why is that?

Will you tell us now, how many lorries it would take to bring in quarter of million tonnes of waste,
supplement fuel, other chemicals and take away large amounts of residues?
And if not, why not?

What does that say about the attitude of Hills Group / NREL towards the residents of Westbury and
surrounding villages? We believe it speaks volumes of purposeful misinformation.

Non-Compliance of EA's Fire Prevention plan



[Original \(Higher resolution\) document here](#)

Non-compliance of EA's Fire Prevention Plan

I refer specifically to page 27 of this document concerning water supplies. The applicant refers to the requirement to provide a 10,800m³ firewater storage tank as “excessive” and is proposing to provide a size of tank yet to be specified, this no doubt will not meet the recommended capacity. The applicant also brings it to our attention that the local water supply, i.e the water main in Stephenson Way is inadequate and will not fulfil the necessary tank refill time in the event of a serious fire. I asked my colleague Mr Eric Dewhurst, a retired Divisional Officer and Head of Operations with Glos. Fire Service to comment on NREL’s application regarding the FPP.

His response was:

"I have read the attached report a couple of times and this is what I observe. The scheme has several built-in flaws which should be considered unacceptable on a new build. The reasons I say this are:

1. The applicant admits that it is acknowledged that the provisions for the supply of firewater at the Facility are not in accordance with the EA's FPP guidance.
2. Water supply restraints mean tank refill times under NFPA are unable to be met. This is because the proposed tank will hold 2,200 cubic meters of water. The guidance implies the need for a 10,800 m3 fire water tank.

The developer claims this to be excessive. They do say later that the size of the tank

may need to be increased but by how much, they do not say.

Regarding the refill times the developer's answer is that refill times may need to be relaxed.

The developer quotes potential water sources in the vicinity of the site i.e. Penleigh Lake, the River Biss and the two lakes at Station Road. These sites are completely unusable due to the distance between a fire tender at the site of a fire and the water source. A water tender does not have enough length of hose to reach these sources and the onboard pumps insufficient suction head at these distances.

The developer is relying on the EA accepting failings at the planning stage by accepting compensating measures such as foam additives, early fire detection and automatic fire suppression".

Lack of information concerning the handling of IBA

The Environmental Risks Assessment plan indicates a comprehensive list of all risks associated with noise, odour and pollutants released to air. In respect of the release of pollutants to air, I would like to comment on the management of the bottom ash from the incinerator which will amount to approx. 40% of the total amount of fuel used in the incinerator, some 45,151 tonnes per year of bottom ash which will be transported off site in heavy goods vehicles capable of carrying approx. 18 tonnes each. This will amount to 5,400 HGVs entering and leaving the site every year or

approx. 14 to 15 vehicles in any 24 hr period. This will be an extremely quick turnaround, as to load, wash and dispatch a single vehicle using a JCB will take around 1 hour. This will be a constant flow of vehicles entering and leaving during operating hours.

The proposer's schematic process plans show an internal ash room where the ash is extracted and stored after being cooled (quenched). A JCB type loader is shown scooping up the ash. Why is the applicant not proposing to store the IBA in a silo to minimise the dust problem?

The developer quotes that "Loading of bottom ash into vehicles will be undertaken within an enclosed building. Bottom ash will be transferred off-site in covered road vehicles. The bottom ash will be maintained dust-free by quenching"

The assumption is that the HGV's are loaded here and then driven to various locations around the UK. The vehicles are described as covered road vehicles. Covered road vehicles imply an HGV fitted with a movable cover to allow loading and prevent emissions from the vehicle whilst travelling on the public highway, similar to the many tipper lorries operating from our local quarries. There is no indication from the proposer's risk assessment that these vehicles are to be fitted with approved dust emission control coverings. Vehicles leaving the site and travelling south will be passing through Westbury and will not only increase the already

polluted Haynes Road, West End and Warminster Road of the A350 but may possibly spread bottom ash dust on the inhabitants whilst travelling through our town. This is a real risk and should be treated as one.

There appears to be no clear and precise explanation of how this ash is treated from the moment it leaves the incinerator and subsequent loading into road vehicles. The proposer should be required to explain this process.

From page 10 to page 14 inclusive, every single risk to the Environment by accidental emissions of dust and other materials are categorised as being of low risk, a nuisance and insignificant.

NREL owe all of Westbury and the rest of the population that they put at risk, a Duty of Care and if there is a risk then they should assess it correctly and modify their proposal accordingly, not cast it aside as 'insignificant'.

This proposal does not make Westbury "a better place"

Concern over discharge of IBA foul water being discharged into the public foul water system.

Two concerns of on-site ash management at incineration facilities are the safety of workers and the possibility that fugitive ash will escape into the environment during handling or removal of the ash for disposal. Both concerns require that the ash be contained at all times, both inside and outside the facility. In the facility, water is used to quench the ash, simultaneously reducing dust generation and minimizing the possibility of ash-dust inhalation or ingestion by workers. In modern systems, a

closed system of conveyors to transport the ash from the furnace to trucks helps to minimize worker exposure. Although some facilities have partially closed ash-removal systems, few have completely enclosed ash-handling systems throughout the plant. Which of these two facilities are proposed by NREL?

More modern systems adopt a continuous removal philosophy. Essentially, a heavy duty chain conveyor submerged in a water bath below the furnace which quenches hot ash as it falls from the combustion chamber and removes the wet ash continuously up to a de-watering slope before onward discharge into mechanical conveyors or directly to storage silos. There are no indications in the proposal of the use of a storage silo. A schematic simply shows an enclosed space with a pile of IBA and a front loader type of vehicle. NREL should be requested to describe the process in its entirety.

More alarmingly, the contaminated cooling water which is not able to be reused within the Facility, will be discharged to foul sewer in accordance with a Trade Effluent Consent which will be issued by Wessex Water prior to commencement of operation. Is this effluent safe to be discharged? There appears to be no report explaining this.

Air Quality: FOTE

d/. Public Health England's most recent advice to Directors of Public Health, endorsed by DEFRA and the Local Government Association, states that PM0.1 exposure represents a serious risk to health because, once in the lung, they can enter direct into the blood stream. This hazard is intensified if the particles are toxically coated, as these incinerator particles will be.

e/. BAT advice on the installation of filters to new incinerators recommends the installation of bag filters. These are regarded as highly efficient for larger particles, but BAT advice recognises that they are largely ineffective in removal of PM0.1. In these circumstances, electrostatic precipitators are recommended.

f/. Central to the determination of any health risk to the local population from the atmospheric emissions is whether the local population is actually exposed (will breathe) the largely undiluted emissions from the chimney. This will likely occur at the Westbury Studland Park residential estate on the Westbury escarpment, firstly, whenever the plume trajectory remains horizontal due to local weather conditions and travels on a wind coming from the north-west to north-east quadrant and, secondly, because the residential estate is at the same elevation as the top of the chimney. This situation remains wholly unassessed in the Environmental Permit application.

g/. Also central to the determination of any health risk to the whole local population from the atmospheric emissions is whether the local population is actually exposed (will breathe) the largely undiluted emissions from the chimney due to plume ground events. The Environmental Permit application supplies the Environment Agency with no data at all on this matter, and no predictive model based on local meteorological features and topographical features. Thus this serious risk to public health is wholly unassessed by the applicant.

In summary, we believe that this Environmental Permit is deficient in a number of serious respects and therefore does not warrant approval in its present form.

Even if these deficiencies in data and models were made good with a satisfactory outcome in terms of providing the necessary validity science, the topographical and meteorological features of the locality will always mean that the local population is likely to be exposed to both toxic contaminated PM0.1 emissions (thus warranting the installation of electrostatic precipitators as a regulatory minimum) and also the full range of other atmospheric emissions, both in a specific locality (Studland Park residential estate) and more generally due to plume grounding.

Therefore we can see no basis for issuing the applicant with an Environmental Permit.

North Wiltshire Friends of the Earth.

4th February 2021.

More FOTE thoughts on inversion (That also address Wiltshire Council)

* Because Hills has not addressed the fact that the Studland Park estate at Westbury is at the same height as the top of the chimney, they have not brought this reality to the attention of the Council along with the fact that the residents of this estate will therefore be directly exposed to the PM0.1 emissions whenever the wind blows in their direction from the incinerator. Therefore will Wiltshire Council planners address this reality in their decision-making?

* Because Hills have not evaluated local meteorological conditions and how they may cause weather temperature inversions (warm air lying on top of cold air, thus trapping the cold air in place), this means that they have not evaluated the likelihood (frequency and duration as recorded in local meteorological records) of plume grounding events in the Westbury area when there is a weather inversion i.e. an emission from the incinerator's chimney is made during a weather inversion, thus meaning that the emission is trapped in the cold air band rather than rising and dispersing - in other words, the emission's plume comes to ground (a plume grounding event). Plume grounding events were of relatively common occurrence with the cement works. The height of the cement works chimney was essentially the same as the incinerator's will be, the location (on similar low land at the foot of the escarpment) is essentially the same, therefore plume grounding events in Westbury and the surrounding area will very probably occur. Hills has **not** evaluated or presented any data to Wiltshire Council on this matter in its Environmental Statement. Therefore will Wiltshire planners assess this matter in their decision-making?

Residues / Bottom Ash etc.

The 243k tonnes feedstock will result in yearly

| | |
|--------------|----------|
| IBA | 45 151 t |
| Oversize ash | 2 626 t |
| Ferrous ash | 4 726 t |
| APCr | 9 276 t |

APCr (fly ash) is very toxic, classed hazardous. Apart from vitrification, no adequate disposing of fly ash has been found. The **Stockholm Convention** makes it clear that dioxins & furans should be destroyed, which currently means using vitrification. In Japan this is done responsibly and much Fly Ash is treated by Plasma Gasification, but this essential safety step has been ignored in the UK.

In Environment risk assessment (Appendix D), Fichtner takes very 'cavalier' attitude to APCr spillage when changing the filter and emptying the silo as being 'nuisance'

The IBA (bottom ash) is also toxic, need 'maturing' while cooling down, as gas released from unprocessed bottom ash might result in adverse reaction. (See explosion in Plymouth harbour)

A related story:

Published: Thursday, December 7, 2017 - 11:00

Explosion of gas released from cargo of unprocessed incinerator bottom ash on Nortrader, 13 January 2017

At 1447 on 13 January 2017, the dry cargo vessel Nortrader suffered two explosions in quick succession. The vessel was anchored in Plymouth Sound and had loaded unprocessed incinerator bottom ash (U-IBA) the day before at Plymouth. The first explosion was in the forecastle store and the second in the cargo hold. The force of the explosion in the cargo hold dislodged all the heavy steel hatch covers and all but one of the holding down cleats were broken. Many of the hatch covers and sections of the hold coaming were distorted. The chief engineer was in the forecastle store at the time, testing the emergency fire pump. He suffered second degree burns and had to be airlifted to a nearby hospital. His recovery was prolonged and he was only declared fit for work again 4 months later. The vessel was out of service until 20 April.

The MAIB investigation established the following:

- Nortrader's master had received an email from the vessel's charterer that the intended cargo of U-IBA was a 'non dangerous' cargo.
- Hydrogen gas released from the cargo seeped into the forecastle store through a slack cargo light access cover. The hold was unventilated at the time.
- All the natural ventilation outlets in the forward compartment, including the forecastle store, were closed in preparation for imminent heavy weather. This allowed hydrogen to accumulate in the forecastle store.

As a final point we must pose the following question:

‘Can we afford to be uncertain about the concentration and grounding of emissions when this incinerator will be so close to homes and schools?’

We think not!

This application should respectfully be refused!



Image: The existing Hills Group complex (MBT) with the white ARLA factory behind. As viewed from Studland Park (below the escarpment)

Thank you 😊

On behalf of **WGAG/NWI** – westburygag@gmail.com - 20th February 2021