



Public Health
England

20/06775/WCM - Annex 2: PHE response

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Your Ref: 20/06775/WCM
Our Ref CIRIS 54131

22nd September 2020

Dear Mr Tomsett,

Planning Application 20/06775/WCM

Amended energy from waste facility to that consented under Planning Permission 18/09473/WCM

Address: Northacre Renewable Energy Stephenson Road Northacre Industrial Estate Westbury Wiltshire BA13 4WD

Thank you for consulting Public Health England (PHE) on the above application.

We understand that the application proposes the following (extract from Environmental Statement Vol 1 – Main Report – Description & Construction Methods).

The Northacre Facility, ... would be a conventional, single line, moving grate combustion plant for the recovery of energy capable of processing circa 243,000 tpa of non-hazardous residual waste.

The principal plant would be located within the main building that would contain the following elements:

- *Reception Hall;*
- *Bunker;*
- *Boiler Hall;*
- *Turbine Hall;*
- *Incinerator Bottom Ash (IBA) storage; and*
- *Offices, Workshop, Stores and Staff Welfare Facilities.*

The Flue Gas Treatment (FGT) facility would sit separate from the main building and adjacent to it would be the freestanding stack (chimney), which would be 75m high. The stack would be circa 2.55m in diameter.

The Air Cooled Condenser (ACC) would form a rectangular shaped structure situated to the north west of the main building. The structure is separate from the main building in order to allow sufficient air flow through the units.

The Northacre Facility would also include the following ancillary / infrastructure:

- *Vehicle weighbridges and weighbridge Gatehouse; • Transformer and Substation buildings*
- *A separate DNO substation;*
- *Odour Control Plant and Stack*
- *Fire water tank and associated pump house;*
- *Tanks / silos (containing fuel oil, ammonia hydroxide, FGT residues);*
- *Internal circulation roadways / ramps and manoeuvring areas;*
- *Employee and visitor parking / bicycle parking including EV charging;*
- *Fencing and gating;*
- *Service connections;*
- *Surface water drainage;*
- *Lighting and CCTV; and*
- *Areas of hard and soft landscaping.*

... the overall Northacre Facility scheme, as now proposed, would also encompass works already consented through three extant planning permissions (described within the planning history section subsequently), these being:

- *The creation of a landscaped bund on part of the land to the west of the Application Site, which would utilise excess soil and subsoil material from the construction phase;*
- *A grid connection from the Application Site to the Rodden Road sub-station in Frome, which is the subject of a pair of planning permissions by virtue of the connection route crossing Wiltshire's administrative boundary into Mendip District.*

We note that the Northacre Facility already benefits from an extant planning permission, albeit for a different design solution to that for which permission is now being sought. This extant permission (reference: 18/09473/WCM), was granted by Wiltshire Council on 17th June 2019. Given the existing permission for a similar facility our response has focussed on the public health significance of differences between the existing and amended proposals.

The Non-Technical Summary accompanying the application includes the following summary of the changes. Key points are included below.

The Northacre Facility, as now proposed comprises a conventional, single line, moving grate combustion plant for the recovery of energy from residual waste. The residual waste would be non-hazardous waste primarily from commercial and industrial sources and may include some municipal waste. Residual waste is the waste which remains after re-use and recycling / composting operations have taken place. The Northacre Facility would generate 28.6

Megawatts. After subtracting the power used to run the facility itself, it would have the ability to export 25.6 Megawatts of electricity to the local electricity grid, which is enough to meet the annual needs of approximately 54,000 homes. The Northacre Facility would also be capable of exporting heat, in the form of steam or hot water, to local heat users. A significant proportion of the energy produced by the Proposed Development would be classed as renewable energy.

If the planning application is approved, the overall construction period would last approximately 36 months and the Proposed Development would be operational in 2025.

Summary of Table 4.1: comparison of Northacre Facility now Proposed and Scheme Approved under the 2019 Permission

Description of item / feature	Northacre Facility as now Proposed	Scheme approved under the 2019 Permission
Application Site area	2.88 hectares	2.74 hectares
Use	Residual waste treatment with energy recovery	Residual waste treatment with energy recovery
Technology	Single line, moving grate combustion	Gasification
Throughput capacity	Circa 243,000 tpa	Circa 160,000 tpa
Gross electricity generation	28.6 MW	25.5 MW
Primary Building Footprint	6,477 m ²	6,535 m ²
Maximum Building Height	40.0 m	36.8 m
Stack	Main stack 75 m high 2.55 m diameter Odour control stack 43 m high	Main stack 75 m high 4 m diameter Odour control stack 40 m high
Average daily HGV numbers servicing facility	78 movements	56 movements
Net Additional HGV numbers as a result of the development taking into account reduced movement to the Northacre RRC ¹	54 movements	42 movements
Employee numbers	40 permanent on-site jobs	40 permanent on-site jobs
Estimated capital cost	£200 million	£200 million

PHE Comments

Should the development take place the operation will also be regulated under the provisions of a permit issued by the Environment Agency (Environmental Permitting Regulations 2016). The associated conditions will require the operator to use the best available technology to ensure that impacts from the combustion process and ancillary waste handling activities site are minimised and are compliant with UK and EU air quality and emissions standards. PHE considered these standards to be protective of public health.

PHE Position Statement (Modern Municipal Waste Incinerators)

PHE's risk assessment remains that modern, well run and regulated municipal waste incinerators are not a significant risk to public health. While it is not possible to rule out adverse health effects from these incinerators completely, any potential effect for people living close by is likely to be very small. This view is based on detailed assessments of the effects of air pollutants on health and on the fact that these incinerators make only a very small contribution to local concentrations of air pollutants.¹

As Environmental Permitting is the primary regulatory mechanism for municipal waste incinerators, PHE will formally consider the public health implications of the proposed development as a consultee in the associated permitting process. For that reason we have limited our consideration at the planning stage to the principle of land use, a consideration of the Environmental Impact Assessment (EIA) approach adopted by the applicant and type and range of submitted assessments.

Changes from Previous Application

Structural

We note that there are some changes to the building design, layout and elevation height. The primary stack will now be of a reduced diameter and that the odour control stack will have increased in height by 3m (to 43m in total). We do not wish to comment on the visual amenity aspects of these changes and do not consider the amendments be significant to a public health risk assessment.

Throughput of Waste

There is an 83,000 tonnes per annum increase in the volume of imported waste. Whilst this is clearly relevant to the potential emissions from the process in terms of odour, flue gases etc. we note that these aspects would still be managed by the associated environmental permit and on that basis do not believe the increase in throughput poses a significant risk to public health.

Electricity Generation

We do not believe this is likely to have any significant impact on our public health risk assessment.

Vehicle Movements

¹ <https://www.gov.uk/government/publications/municipal-waste-incinerators-emissions-impact-on-health/phe-statement-on-modern-municipal-waste-incinerators-mwi-study>

The Net additional vehicle movements have increased for 56 to 78 (22 additional movements). Whilst this constitutes a 39% increase over the extant permission, we note the vehicular access routes also serve West Wiltshire Trading Estate. The area is home to a significant number of other large industrial / commercial operations including large warehousing and food manufacture operations. The primary vehicular access to the A350 in all cases is via the B3097. In this context we do not believe that the additional 22 daily movements are likely to be significant in public health terms.

Impacts during construction

As with any development there may be some localised short-term impacts during the construction phase of the project. We note however that such impacts can be adequately managed by normal control measures and the use of industry good practice. Should issues such as noise or dust impacts arise during construction the existing regulatory controls available to the local authority are considered adequate.

Air Quality

The applicant has modelled likely emissions from the site and considered the impact on local air quality. There are a number of sensitive receptors within 2km of the proposed plant including a powdered milk production facility, residential premises, commercial premises, recreation areas, schools and care homes. The submitted assessments have identified these receptors and assessed the impact of a range of emissions from the plant. No significant impacts have been identified in the documentation and PHE is satisfied that the applicant is utilising assessment criteria that are in line with UK guidance and good practice.

There is an Air Quality Management Area (AQMA) in Westbury, declared on the basis of nitrogen dioxide, but we note that the predominant source of NO₂ in that area is vehicular traffic. The submitted assessments indicate that the additional contribution from either traffic associated with the proposed development or from stack emissions is likely to be small and consequently is unlikely to have a significant impact on public health. We note that Wiltshire Council has the primary responsibility for managing the AQMA and would recommend that the planning authority consult internally with the appropriate team to confirm that they are happy with the proposals as submitted..

On the basis of the information submitted with the application PHE is satisfied that the development/process should be capable of operating within the requirements of current UK regulations, air quality standards and emissions standards. Detail of the regulatory control, emissions requirements and monitoring requirements will be considered in more detail as part of the environmental permitting process; however, on the basis of the information submitted to date PHE would be unable to sustain any objection to the development on the grounds of air quality.

Transport Impacts

PHE has only considered the impact of traffic on air quality and does not wish to comment on other matters such as noise although we note that as a result of the existing traffic burden the predicted increase in overall traffic levels as a result of both the construction and operational phases is predicted to be small. We are not able to assess the accuracy of the traffic predictions and should Wiltshire Highways department disagree with the applicants estimates we would be happy to reconsider this matter based on any new evidence.

Controlled Waters

The development/process is handling waste and consequently there is a potential for this to impact on the local environment and controlled waters. This matter is however better assessed by the Environment Agency and will be addressed by suitable permit conditions.

Noise

PHE does not provide comments on noise at the present time.

Conclusion

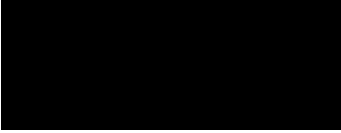
PHE is satisfied that the applicant has approached the environmental impact assessment in a manner consistent with the UK requirements. They have utilised a satisfactory approach and methodology to predict the likely emissions, distribution of a range of key pollutants and the impact on the local environment and receptors.

PHE will further consider the emissions and appropriate control measures when we are consulted as part of the Environmental Permitting process and will make additional comments at that time. We are however satisfied that the applicant has demonstrated that the proposed development can be carried out without any significant impact on health, subject to compliance with UK air quality and emission standards. For that reason, we do not wish to raise any objection to this planning application.

We note that there is local opposition to the application and recommend that you liaise closely with your council's public health and health and wellbeing teams. This will ensure that they are aware of the application and local concerns and assess the wider public health implications and impacts on the local community.

If you have any questions or require any clarification, please do not hesitate to contact us.

Yours sincerely



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