Public Health England

Centre for Radiation, Chemical and
Environmental Hazards
Skipton House, 80 London Road
London
SE1 6LH

T: 020 7811 7141

Sam Dumbrell
City Planning
County Hall
Chichester
West Sussex
PO19 1RH

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Dear Sam Dumbrell

Planning application for Britaniacrest Recycling Limited, Former Wealden Brickworks Waste Transfer Station, Langhurst Wood Road, Horsham, West Sussex RH12 4QD

Reference: WSCC/015/18/NH

Thank you for consulting Public Health England (PHE) on the above planning application on 16th March 2018. It is understood that the application is for a recycling and energy recovery facility. PHE expect to be consulted by the Environment Agency (EA) when the applicant applies for an environmental permit and will make more detailed comments on the proposed site emissions.

Introduction

The site is located on an industrial estate, which is in a predominantly rural area. The closest residential receptors to the site lie approximately 210m to the south east of the proposed site boundary. Residential properties are also located approximately 330m to the north east and south of the proposed site boundary. There are no other potentially sensitive public receptors within 500m of the proposed site.

The operator has previously obtained planning permission for the recycling activities on site but has now applied for planning permission to incorporate energy recovery. It is proposed that the energy recovery facility will predominantly accept non-hazardous commercial and industrial wastes and also municipal solid waste. The site has a design capacity of 230,000 tonnes of waste per annum with a maximum electricity output of 28 megawatts per annum. The facility will have the capability to produce both electricity and heat for export.

Point source emissions to air

The proposal is for moving grate incineration technology based on a process line with the combustion gases being subject to flue gas treatment (FGT) before release to atmosphere via a 95m high exhaust stack. The FGT treatment procedure has not been finalised but will be employed to minimise emissions, and is expected to include the injection of urea to reduce emissions of oxides of nitrogen (NO_x); hydrated lime injection for reduction of acid gases; and activated carbon to capture metals (including mercury) and organic compounds (including dioxins and furans). Finally, the airstream will be filtered (using bag filter systems) to remove fine particulate matter and heavy metals.

Dispersion modelling (using ADMS) has been used to predict the resulting ground level pollutant concentrations (including particulate matter, NOx, SO_2, CO, HCl, HF, NH_3, dioxins and furans), due to emissions from the stack. The maximum short term and long term predicted contributions from the energy recovery facility (ERF) were considered with the worst case background concentrations. The resultant predicted environmental concentrations were assessed and the impacts are unlikely to be significant except for long term arsenic. Arsenic was subsequently screened out as insignificant following more detailed analysis. Therefore, emissions to air are not expected to cause any significant impact to human health. In addition, the site doesn't lie in or in the vicinity of any Air Quality Management Areas (AQMA's).

PHE note that air quality impacts have only been modelled at a relatively small number (n= 8) receptors. The planning authority may wish to ensure that the applicant plans to undertake more detailed modelling at a greater subset of receptors at the environmental permitting stage.

Solid Waste

The major wastes resulting from the energy recovery process are incinerator bottom ash (IBA) and flue gas treatment (FGT) residues. The solid residues will include: approximately 40,000 tonnes a year of bottom ash which can be reused as secondary aggregate. The applicant states that storage for approximately 4 days of IBA has been provided and that it expects it to be determined as non-hazardous.

Little information is provided on the recovery, storage and transport of IBA in the application; the planning authority may wish to ensure that the applicant plans to consider this in further detail at the environmental permitting stage.

Accident management plan

An accident management plan is not included within the application but the applicant does provide details on the cleanup of spills, abnormal operations and fires. The applicant outlines some mitigation measures in the case of fire including fire detection systems, water sprinklers and fire hoses. However as flammable waste may be accepted on site and there is planning permission accepted for a Refuse Derived Fuel (RDF) site immediately north of the site boundary ***the planning authority may wish to ensure that appropriate consideration is given to the implementation of an accident management plan and measures to minimise***

the public health impacts in the event of a fire incident, such as appropriate storage, management and adequate access for firefighting via a Fire Prevention Plan

Recommendations

- The planning authority may wish to ensure that the applicant has plans in place to undertake air quality dispersion modelling to assess a larger number of receptors;
- The planning authority may wish to confirm that on-site procedures are sufficient to prevent any off-site emissions of incinerator bottom ash particles; and
- The planning authority should consider the need for the applicant to develop an accident management plan that:
    - Identifies all the potential hazards in relation to all of the proposed operations;
    - Assesses the risk associated with the hazards (e.g. fire) (including an assessment of the potential impact on human health, e.g. on local residents); and
    - Identifies the measures to prevent or mitigate the risks.

In relation to potential risk to public health we recommend that the planning authority also consult the following relevant organisation(s) in relation to their areas of expertise:

- the Local Authority environmental health for matters relating to impact upon human health of contaminated land, odour dust and other nuisance emissions.
- the Food Standards Agency (FSA), where there is the potential for deposition on land used for the growing of food crops or animal rearing; and
- The Director of Public Health for matters relating to wider public health impacts.

Summary: assessment of potential impact to public health

The main concerns in relation to potential impact on public health are emissions to air from the stack during the operation of the installation or as a result of an on-site fire. Providing that the planning authority are satisfied that the installation will not contribute to a significant increase in local air pollution, there is unlikely to be an impact on public health from this installation.

Any additional information obtained by the Planning authority in relation to these comments should be sent to PHE for consideration. Such information could affect the comments made in this response.

Yours sincerely

Nicholas Brooke

Environmental Public Health Scientist

nicholas.brooke@phe.gov.uk

CC: Rachel Loveday, West Sussex County Council
South East PHE Centre