Permitting decisions

Variation

We have decided to grant the variation for Great Yarmouth Decommissioning Facility operated by Veolia ES (UK) Limited.

The variation number is EPR/BB3808TU/V003.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document provides a record of the decision making process. It:

- highlights key issues in the determination
- summarises the decision making process in the decision checklist to show how all relevant factors have been taken into account.

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit and the variation notice. The introductory note summarises what the variation covers.

Key issues of the decision

Operational summary

This variation application concerns the operator's proposal to expand their existing facility, thereby increasing the operational area from approximately 5,500m^2 to 33,000m^2, in response to a predicted increase in decommissioning projects in the future. This variation will result in the site being permitted as an 'Installation' for the first time due to the increased amount of hazardous wastes to be stored and treated.

The installation will continue to service the decommissioning needs of the offshore oil and gas industry in depolluting and dismantling up to 150,000 tonnes per annum of marine vessels and marine structures, principally oil and gas platforms that have reached the end of their operational life. These platforms comprise of the Jackets (the steel legs of the platform) and the Topside (the production plant, drilling rig and accommodation block.) In general the structures are weakened following the methodology in British Standard BS6187:2011 *Code of practice for full and partial demolition*. This method weakens the structure and then it is pulled at a pre-determined point to bring about collapse. This allows a controlled destruction of the structure (primarily the Jackets), without having to use explosives. Other techniques employed on the Topsides include high-reach excavators with specialist shearing equipment and the removal of small items using hot and cold cutting techniques and lifting operations. Once collapsed, the components are cut into easy to handle lengths and then segregated into different materials to await collection for recovery.

The variation does not involve increasing the annual waste throughput of the site however the proposed extension will allow for greater storage and operational flexibility. Although the type of decommissioning undertaken at the facility is not changing, the need for an installation permit due to exceedance of EPR thresholds means that the specific activities are more clearly defined within the installations permit.

The 'listed' activities being added to the permit as a result of this variation application are as follows:

- S5.3 A(1)(a)(iv) – the disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving repackaging. This relates to the removal of oils and other hazardous materials from the vessels and structures and repackaging the materials into barrels, IBCs and other containers.

- S5.6 Part A(1)(a) – the temporary storage of hazardous waste with a total capacity exceeding 50 tonnes. This relates to the temporary storage of hazardous materials removed from the vessels and structures prior to the hazardous materials being removed off-site.

The following directly associated activities are included on the permit:

- the cleaning of tanks and pipework following the removal of oils and other hazardous materials in order to remove any remaining residues
- the temporary storage of non-hazardous waste removed from the vessels and structures, including metals, plastics, wood, textiles, and insulation materials, prior to recovery or disposal off-site
- the temporary storage of hazardous and non-hazardous waste electrical and electronic equipment (WEEE) removed from the vessels and structures, prior to the recovery off-site
- the storage of raw materials used on-site, including diesel, unleaded petrol, oxy-propane, propane, cleaning chemicals and various oils and greases

The following existing waste operation which relates to breaking down of the large vessels and structures into smaller sections, remains on the permit:

- the manual dismantling of the vessels and structures using the techniques of manual sorting, manual separation, hot and cold cutting, hydraulic shearing and power sawing.

The key issues associated with this variation application relate to the following assessments, described below:

(1) protection of soil and groundwater,

(2) application of Best Available Techniques (BAT)

(3) fire risk prevention,

(4) waste types.

(1) Protection of soil and groundwater

The site is located as shown in Figure 1 below. The site is split up into 4 distinct areas, as indicated by the colour coding on Figure 2, as follows:

Area 1 – Impermeable, bunded hazardous waste storage area (red crosshatch)

This comprises of an impermeable concrete bunded area with a gradual slope down into a catchment area with a sump and pump for water extraction. It will be used as quarantine area and a hazardous waste container storage area. Wastewater arising will be contained, pumped out and removed off-site.

Area 2 – Tarmac Decommissioning Pad (dark grey)

This area comprises of a tarmac surface with sealed drainage for the capture of process run-off prior to being passed through a below ground Class 1 interceptor with oil separator. This forms part of the existing surface water management system, comprising of the drainage infrastructure, the interceptor, above-ground storage tanks, and sample chamber. Process run-off will be discharged to soakaway if it meets the conditions of the existing Groundwater Activity permit, ref. EPR/FB3490AQ, or removed off-site. The area will be used for processing activities, dismantling and storage, principally associated with the topside structures.

Area 3 – Permeable sand and gravel areas (green and purple)

This area comprises of an unmade surface consisting of sand and gravels. It is used for storing clean processed metal prior to offsite recovery. Clean jacket structures will be stored in this area and also felled onto a bed of sand, to allow them to be cut into smaller sections ready to be removed to the processing area (Area 2) for further cutting down. While principally used for storing clean metal, with the addition of temporary bunds (see below), this area may also be used for storing and treatment of waste, e.g. large structures, which will have had all hazardous waste already removed.

Area 4 – Block-paved quayside area (beige)

This area comprises of block paving with a sealed drainage system and interceptor, with an outfall to Great Yarmouth outer harbour. It will be used for the storage and dismantling of clean jacket structures, and for the temporary storage of clean scrap metal prior to loading onto vessels. Similarly to Area 3, with the addition of temporary bunds, this area may also be used for storing and treatment of waste, e.g. large structures, which will have had all hazardous waste already removed.

Figure 1: Site location

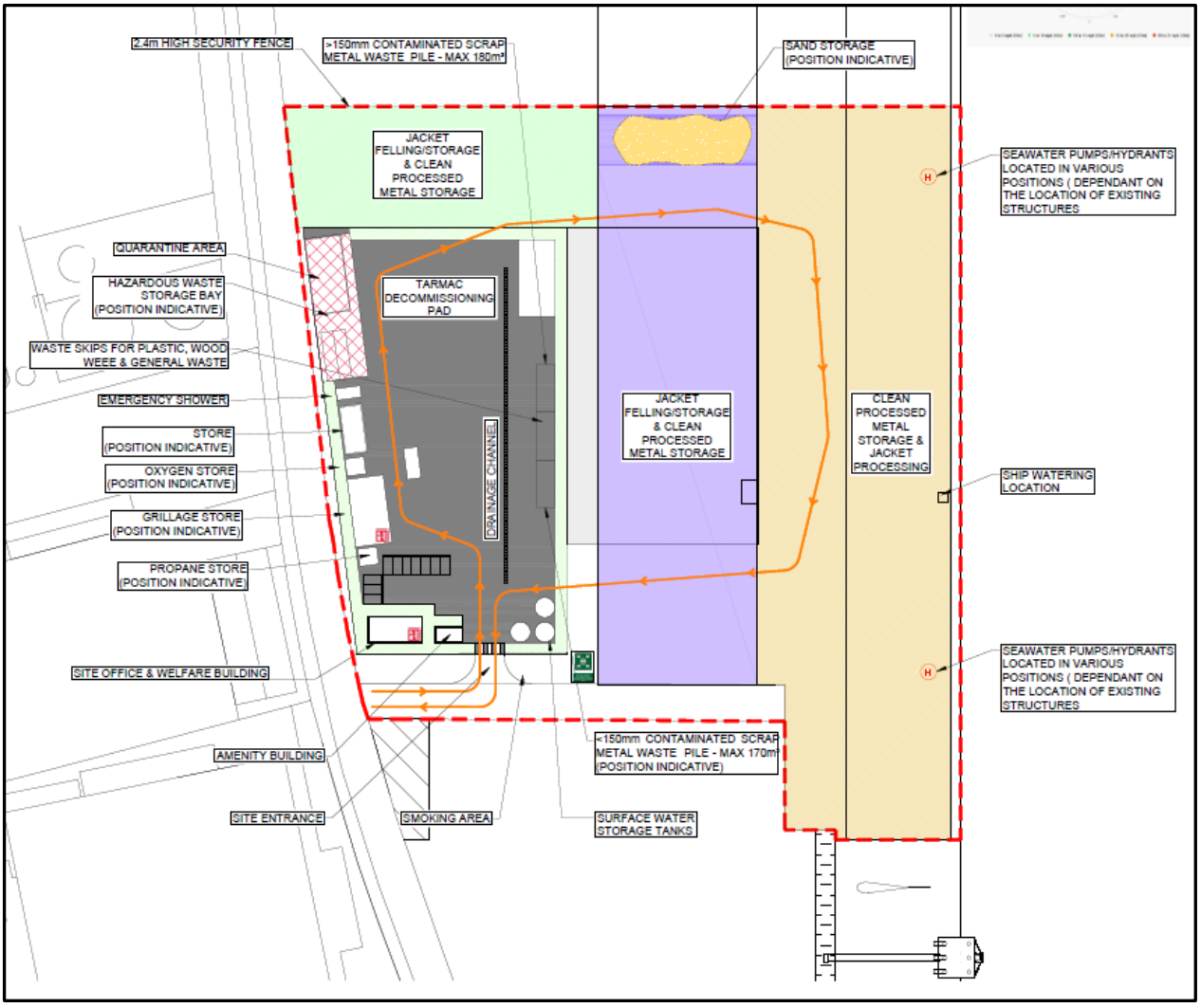

Figure 2: Site layout (installation boundary shown as dashed red line)

Use of temporary bunded areas

The operator proposes to construct temporary bunded areas on Areas 3 and 4. They have submitted a risk assessment and detailed method statement for the use of these temporary bunded areas which clearly sets out why and when they will be used, how they will be constructed, and the measures involved to protect soil and groundwater and also surface water in the case of Area 4. The operator states that the need to use temporary bunded areas is principally that the quayside is a working quay and is managed by the Harbour Authority and as such it cannot be altered other than by the placing of a temporary system of containment on the top of the existing surface.

The temporary bunded areas will be constructed prior to the set-down of any marine structure being decommissioned. The impermeable surface will be formed using a High Density Polyethylene (HDPE) membrane welded together to form a continuous sheet. One inch plywood boards will be laid upon the HDPE layer, and on top of this will be laid the stillage which will support the marine structures being decommissioned. When constructing a temporary bund on Area 3, prior to installing the membrane material, steel plates will be placed on the ground in the support locations to prevent local ground settlement around set down points, and to prevent any stretching of the membrane which could cause a potential breach in the material.

The bund around the perimeter will be formed using layered sandbags which would be wrapped in the HDPE membrane material to form a kerb. A collection sump or pumping chamber would be installed at the lowest point in the temporary bunded area. When constructing a temporary bund on Area 3 the pumping chamber would be formed by placing a typical IBC into the ground, with space within for two submersible pumps. On Area 4 the fall to the collection sump will be formed by the existing levels. All water pumped from within the

bund would be routed through the Class 1 full retention interceptor on the main decommissioning pad (Area 2).

Prior to the set-down of a marine structure, the sandbags would be placed around three sides of the perimeter with one side initially left open to allow transport access and egress. The remaining side of the bund will be sandbagged and sealed once set-down of the structure has been completed.

The operator proposes that once in operation all temporary bunds will be subject to a daily visual inspection to check for any potential breaches of the HDPE membrane material. In addition the bunds will be inspected after any operations have taken place on the marine structure. If any damage is reported then the site emergency management plan will come into effect and the damage to the membrane will be repaired immediately using the repair kit on-site. The same welding techniques used for installation will be employed for repair of the membrane material.

Conclusion

We are satisfied that the site surfacing and drainage, the existing surface water management system, and the manner in which the proposed temporary bunded areas will be used, inspected and maintained, as described above, will ensure appropriate protection of soil, groundwater and surface water and is considered BAT for the site.

(2) Application of Best Available Techniques (BAT)

In being regulated as a waste 'Installation' rather than a 'waste operation' the facility must now meet the requirements of Industrial Emissions Directive (IED). Article 11(b) of the Industrial Emissions Directive and paragraph 5(e), Schedule 7A of the Environmental Permitting Regulations (EPR) require that we ensure that installations are operated in accordance with the principle of applying Best Available Techniques (BAT). Article 13 of the Waste Framework Directive (WFD) and paragraph 4(1)(b) of the EPR require that we exercise our functions to take necessary measures to ensure that waste management is carried out without endangering human health and without harming the environment.

BAT means the available techniques which are the best for preventing or, where that is not practicable, reducing emissions and impacts on the environment as a whole. 'Techniques' within the meaning of BAT include both the technology used and the way an installation is designed, built, maintained, operated and decommissioned. The concept of BAT and how it should be applied is set out in the IED and applies specifically to the Schedule 1 'listed' activities and DAAs set out in Table S1.1 of the permit.

In operating previously as a waste operation, rather than BAT the operator would have been required to demonstrate that they had 'appropriate measures' in place in order to meet the requirements of Article 13 of the WFD. European directives have historically used various terms to describe what type of measures should be taken to prevent pollution such as "all appropriate preventative measures", "reasonable", "best available" and "best practicable". While these can all be interpreted slightly differently they all have the same general meaning that we call 'appropriate measures'.

The operator has undertaken a BAT assessment which considers the techniques for waste pre-acceptance, waste acceptance and waste storage applied at the facility. They have made a comparison with sector guidance IPPC S5.06 'Guidance for the Recovery and Disposal of Hazardous and Non-hazardous Waste. We consider that the requirements of IPPC S5.06, although it refers to 'indicative BAT', contains measures that we consider equally applicable to both installations and waste operation sites. In this respect we consider 'indicative BAT' and 'appropriate measures' to be one and the same.

The existing waste operation (manual dismantling involving hot and cold cutting, shearing, and sawing) is being continued at the installation and will be carried over into Table S1.1 of the installations permit. We have reviewed the operator's assessment and remain satisfied that the operator will be using 'appropriate measures' as set out in IPPC S5.06 to meet the requirements of the WFD. Likewise for the Schedule 1 'listed' activities and DAA's we are satisfied that the operator is applying BAT as necessary to protect human health and the environment.

A summary of their procedures is outlined below.

Each item being decommissioned will be treated as an individual project, such that all risk assessments and dismantling procedures are carried out on a case by case basis.

Waste pre-acceptance

A pre-acceptance assessment of waste types and estimated quantities is developed at contract bid stage. Upon contract award this is then reviewed with an offshore assessment undertaken to catalogue and quantify waste volumes as well as identifying all hazardous wastes. This is referred to as the Hazardous Materials Inventory Report, which is then provided to the facility so that plans can be established for appropriate receipt and processing of wastes associated with that particular project. The Hazardous Materials Inventory Report documents each hazardous waste fraction and any analysis undertaken to identify unknown waste. It allows the facility to plan for the processing of waste through the production of a project specific waste management plan for each marine vessel or marine structure being decommissioned. Costing is agreed in advance of the contract commencing and acceptance of any waste at the site. Waste 'maps' are also created to confirm disposal and recovery route options.

Waste acceptance

Upon receipt on-site incoming waste loads are weighed and inspected to confirm details against the accompanying paperwork, to identify non-conformances and any need for quarantine, and to apply unique identifiers to the waste in order to track it through subsequent processing. This system is supported by a computer based Environmental Tracker system.

Waste storage

Wastes which have the potential to cause leaks and spillages will be brought ashore and stored on the quayside within temporary bunded areas with sealed drainage and containment systems. Once landed on the quayside and while within the bunded area hazardous substances such as oils, fluorescent tubes, capacitors and mercury switches are removed. These will be repackaged and moved for secure storage in the dedicated Hazardous Waste Storage Area and Wash Bay, prior to being transferred off-site to a suitably licensed facility.

Hazardous chemicals and wastes containing polychlorinated biphenyls (PCBs), lead, and mercury, will additionally be stored in secure sealed containers, for example, asbestos waste will be double bagged and stored within clearly identified segregated, secure, lockable containers. Once depolluted, any reusable items (such as working pumps) are removed. Then the vessel or structure is stripped of any other readily accessible materials (like doors, fixtures and fittings), ready for manual dismantling.

The storage of hazardous and non-hazardous WEEE will take place in sealed containers on an impermeable surface with a suitably designed containment system to prevent fugitive releases of site run-off. The storage of waste metal and separate fractions including plastics, wood, textiles, and insulation materials, removed from marine vessels and marine structures under de-commissioning, will be stored in containers, bays, cages or onto pallets, prior to the export of such waste off-site.

Naturally Occurring Radioactive Material (NORM) may be present on the incoming wastes and in these cases, once identified it will be handled within the NDU (NORM Decontamination Unit) in accordance with a site's Radioactive Substances (RSR) Regulations permit.

Waste Treatment BAT Conclusions

The Waste Treatment BAT Conclusions, ref. (EU) 2018/1147, were published by the European Union in August 2018 during our determination of this variation application. The issue of this variation will see the facility permitted as an Installation and therefore subject to the requirements of the IED and within scope of the BREF / BAT Conclusions for the Waste Treatment sector. We are satisfied that the installation permit will be considered for review against the relevant requirements of the BAT Conclusions in accordance with our permit review timetable for this industrial sector and that no further action is required at this time.

(3) Fire risk prevention

Due to the combustible nature of some of the wastes permitted to be received by the site, the Operator submitted to us a Fire Prevention Plan (FPP) as part of the Application. Having considered the FPP we are satisfied that appropriate measures will be in place to prevent waste fires, but that if fire did occur, the impact on people and the environment will be reduced. We have approved the Operator's FPP as it meets the regulatory standards that we expect operators to follow.

The operator has written the FPP such that it covers the management of the following materials:

1) separated WEEE, plastics, wood and general waste that make up <5% of the input material, and the oil-contaminated metals that have been removed from the marine structures and are yet to be processed (~1%). These will be stored separately in piles that meet the requirements of our FPP guidance, and for no longer than 3 months duration; and

2) large marine structures as they arrive and are stored on the site (prior to dismantling) as they may contain wastes which are potentially combustible should they come into contact with a heat source.

   Given that these large structures may comprise of either the legs of an oil or gas platform (known as the jacket), or the production plant and accommodation block which sits on top (known as the topside) they will significantly exceed the maximum pile sizes set out in our guidance. In order to minimise any risk of fire from these large structures, the operator proposes:

   a) to remove any combustible waste prior to hot works being carried out in the vicinity, e.g. hot cutting of steel;

   b) to store structures with a separation distance between them of at least 6m to prevent the spread of fire if it were it to occur; and

   c) that during operational hours Fire Wardens will be used and inspections will be completed after any hot works, in line with Permit to Work requirements, and any hot works carried out on the structure itself will be concluded at least 3 hours prior to the end of the shift to allow sufficient inspections to be carried out.

We consider that the fire risk associated with the storage of these large structures before they are dismantled is much lower than the risk from the storage of separated combustible wastes removed from the structures during decommissioning. The operator states that typically the structures comprise >90% clean metal, however there will be fractions of non-hazardous and hazardous materials, some of which will be combustible. We are satisfied that the operator's proposals are justified and proportionate to the fire risks associated with these initial decommissioning steps.

(4) Waste types

The operator has applied to include a number of additional EWC waste codes to the permit as part of this variation. The list of wastes now more accurately reflects the materials that are processed at the site. Due to the absence of a specific European Waste Catalogue Code for 'marine vessels' and 'marine structures', the waste code tables in the permits limit the operator to taking only marine vessels and marine structures.

The waste codes listed within the permit are the types of wastes that can be expected to be found as part of, or within, marine vessels or marine structures. Waste not forming part of or found within marine vessels or marine structure cannot be received at the site.

Schedule 2, Table S2.2 of the permit outlines this restriction:

Wastes within the waste codes listed below may be accepted at the site insofar as they are:

a) part of a marine vessel or marine structure

b) aboard or together with a marine vessel or marine structure and present as a consequence of the operation or maintenance of that marine vessel or marine structure.

Schedule 6 of the permit further defines marine vessels and marine structures:

“marine vessel” means any waste ship, vessel or other craft, and shall include any partially dismantled ship, vessel, or other craft.

“marine structure” means any oil or gas platforms, gravity based structures, tension leg structures, drilling rigs, jack-ups, legs, jackets, storage structures, sub-sea installations (including subsea pipelines), modules, and includes any partially dismantled marine structure.

These definitions are consistent with those included in other permits for similar installations undertaking marine decommissioning work.

Decision checklist

Aspect considered	Decision
Receipt of application	
Confidential information	A claim for commercial or industrial confidentiality has not been made.
Identifying confidential information	We have not identified information provided as part of the application that we consider to be confidential.
Consultation	
Consultation	The consultation requirements were identified in accordance with the Environmental Permitting Regulations and our public participation statement. The application was publicised on the GOV.UK website. We consulted the following organisations: - Local Authority Planning and Environmental Health departments - Health & Safety Executive - Fire & Rescue Service No responses were received.
The facility	
The regulated facility	We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', and Appendix 2 of RGN 2 'Defining the scope of the installation'. The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.
The site	
Extent of the site of the facility	The operator has provided a plan which we consider is satisfactory, showing the extent of the site of the facility. The plan is included in the permit.
Site condition report	The operator has provided a description of the condition of the site, which we consider is unsatisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive. A consultant's report comprising of a desk based Phase 1 study into the condition of the area of the site extension has been submitted. This was based on published information together with evidence from a site walkover. While the report does not include any intrusive monitoring data, it does make recommendations for the collection of soil and groundwater date for a range of pollutants highlighted as potential liability risks upon surrender. The operator has committed to undertaking this intrusive monitoring prior to commencement of operations on the area of the site extension. We have

Aspect considered	Decision
	included this requirement as a pre-operational condition in the varied permit, in order to agree the baseline condition of this land.
Biodiversity, heritage, landscape and nature conservation	The application is within the relevant distance criteria of a site of heritage, landscape or nature conservation, and/or protected species or habitat. We have assessed the application and its potential to affect all known sites of nature conservation, landscape and heritage and/or protected species or habitats identified in the nature conservation screening report as part of the permitting process. There are no point source emissions to air from the installation. The only point source emission to surface water is of uncontaminated surface water run-off, i.e. rainfall. Although there is a point source discharge to ground from within the installation it is regulated via a separate groundwater activity permit and in any case, this discharge to ground remains unchanged as a result of the proposals contained within this application. We consider that the application will not affect any sites of nature conservation, landscape and heritage, and/or protected species or habitats identified. We have not consulted Natural England on the application. The decision was taken in accordance with our guidance.
Environmental risk assessment	
Environmental risk	We have reviewed the operator's assessment of the environmental risk from the facility. The operator's risk assessment is satisfactory. See the key issues section of this document.
Operating techniques	
General operating techniques	We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility. The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.
Fire prevention plan	We have assessed the fire prevention plan and are satisfied that it meets the measures and objectives set out in the Fire Prevention Plan guidance. See the key issues section of this document.
Permit conditions	
Updating permit conditions during consolidation	We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit(s).
Use of conditions other than those from the template	Based on the information in the application, we consider that we do not need to impose conditions other than those in our permit template.

Aspect considered	Decision
Waste types	We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility. We are satisfied that the operator can accept these wastes for the following reasons: • they are suitable for the proposed activities • the proposed infrastructure is appropriate; and • the environmental risk assessment is acceptable. See the key issues section of this document.
Pre-operational conditions	Based on the information in the application, we consider that we need to impose pre-operational conditions. The pre-op condition requires the operator to undertake intrusive monitoring of soil and groundwater on the area of the site extension to establish baseline conditions in accordance with the requirements of the IED. In pre-application discussions the operator committed to doing this work prior to operations commencing on the new area of the site, so this pre-op condition simply formalises what was agreed in those earlier discussions.
Emission limits	No emission limits have been added, amended or deleted as a result of this variation.
Reporting	We have added reporting in the permit for the following parameters: Table S4.2 - Annual amounts (in tonnes) for recovery of WEEE, ferrous metal, non-ferrous metal, hazardous waste and non-hazardous waste Table S4.3 - Annual water usage (in cubic metres) and energy usage (in MWh)
Operator competence	
Management system	There is no known reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.
Technical competence	Technical competence is required for activities permitted. The operator is a member of an agreed scheme. We are satisfied that the operator is technically competent.
Relevant convictions	The Case Management System has been checked to ensure that all relevant convictions have been declared. No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.
Financial competence	There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.
Growth Duty	

Aspect considered	Decision
Section 108 Deregulation Act 2015 – Growth duty	We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit. Paragraph 1.3 of the guidance says: "The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation." We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections. We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

Consultation

No responses were received in response to our consultation with other organisations, and to our notice on GOV.UK for the public.