

## Permitting decisions - Low Impact Installation

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We have decided to grant the permit for Pilot Facility operated by Nyobolt Limited.

The permit number is EPR/DP3823LR.

This permit was granted on 14/11/2024.

The application is for a new low impact installation at Unit 1a and b, Homefield Road, Haverhill, CB9 8QP. The installation is permitted for the following activity under the EPR 2016:

Section 4.2 Part A(1)(a)(v) – Producing inorganic chemicals such as metal oxides – within the low impact installation criteria.

This is a pilot facility and uses very low amounts of raw materials for processing at any given time. The inorganic chemicals such as niobium pentoxide and tungsten oxide are used for the production of a metal oxide which is the main product.

There is one emission point to air. There are no emissions to surface water or groundwater from this site.

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 considerations](#) section to show how the main 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.

## Key issues of the decision

The following table provide evidence that the operator meets the low impact installation criteria.

<b>Low impact installation criteria with description</b>	<b>Demonstration of criteria being met.</b>
<p>A. Management Techniques - All of the criteria described below must be met without having to rely on significant management effort. In other words, the installation intrinsically must have only a low environmental impact, including under start up, shut down, or abnormal operating conditions.</p>	<p>The facility and associated processes are managed by Nyobolt, and under normal operating conditions have very low environmental risk. The process is relatively simple. It comprises of stages of precursors milled, mixed, dried, baked, deagglomerated and blended. The process does not need chemicals being added in at different stages in specific amounts, only water is added to aid in the cohesion of the two oxides. This is a pilot facility, and the volumes of material to be processed at any one time are relatively low. All of the following criteria described below rely on minimal management effort.</p>
<p>B. Wastewater – The installation must not release more than 50m<sup>3</sup> per day of water from process activities conducted at the installation giving rise to effluent. No account need be taken of the volume of water exported from the installation as product. Characterise and quantify any aqueous effluents released from the installation on a daily basis and provide justification that the installation releases no more than 50 m<sup>3</sup> per day of water from process activities.</p>	<p>There will be no release of water from process activities. Small amounts of aqueous non-hazardous slurry waste may occasionally arise during cleaning or sampling, which is incidental to the process. No more than 50m<sup>3</sup> of waste water will be produced or released per day from the process activities undertaken at the facility.</p>

	<p>Nyobolt will endeavour re-using this to have zero waste. Nyobolt is already in discussion with Anglian Water with regards to the correct disposal of such waste, should this be the preferred route. If necessary, Nyobolt will collect such waste in IBCs and then filtered, precipitated or /flocculated to result in a solid Product A waste and clean water. The procedure for flocculation is in development will be developed if required.</p>
<p>C. Abatement Systems/releases to air - The installation must comply with the criteria in this guidance without having to rely on active abatement for releases to the environment outside of any buildings. Releases must not be dependent on continuing or correct operation of equipment, where failure of active pollution prevention systems could result in an unacceptable external release. For example, if the installation depends on active abatement in the form of scrubbers, filters or electrostatic precipitators to achieve the releases to the environment set out in this guidance, it unlikely that it can be treated as having only a low potential for impact. However, abatement systems installed solely for the protection of workers (where abatement is not to attenuate external environmental releases) need not be included in this assessment.</p>	<p>Nyobolt have commissioned emissions testing on the furnace emission point, which emits outside of the building. From the emission testing (report provided as Appendix 2) and a H1 Assessment which has been carried out for emissions to air, it has been concluded that no active abatement is required for the point source emission to air.</p> <p>Internally, localised extraction is used by way of mobile extraction. This is a movable and mobile piece of equipment which can be used to vacuum fines during unloading of materials into tanks, or to clear up any spillages. The extraction system will have a HEPA filter, and fines will be collected into a drum. Nyobolt will seek to reintroduce fines back into the process where possible, to minimise losses. This system is in place to protect workers during operations. If this equipment wasn't used, there is extremely low risk of dust/particulate matter being airborne and leaving/escaping the building. The fines are heavy and are prone to settlement rather than becoming airborne.</p>

<p>D. Emissions to groundwater - There must be no planes or fugitive emission from the permitted installation into the ground, or any soakaway. This does not preclude the discharge of clean rainwater run-off into soakaways.</p>	<p>There are no planned or fugitive emissions to groundwater. The facility and all associated operations will be carried out inside a building, which comprises impermeable flooring, impervious to leaks and spills.</p>
<p>E. Waste production - The installation must not product more than one tonnes of waste or 10 tonnes of hazardous waste per day, averaged over a year, with not more than 20 tonnes of waste or 200 kg of hazardous waste being produced in any one day.</p>	<p>The substances used in the process are non-hazardous, and the only addition to the metal oxides is water. Section B describes the waste. Waste production from the process will be under the threshold of 1 tonne. There will no hazardous waste produced, and therefore will be within the criteria of less than 10kg of hazardous waste. Small amounts of aqueous non-hazardous slurry waste may occasionally arise during cleaning or sampling. Where possible, fines of material will be reused in the process to minimise losses. Nyobolt will endeavour re-using this to have zero waste.</p>
<p>F. Energy consumption - The installation must no consume energy at a rate greater than 3MW or, if the installation uses a combined heat and power installation to supply any internal process heat, 10MW. These limits apply to the sum of energy imported as electricity and produced on site through the combustion of fuels.</p>	<p>The furnace specification is provided as Appendix 3. The furnace is electric with the energy consumption rate approximately 0.4 MW, which is significantly lower than the energy consumption limit for Low Impact Installations.</p>

<p>G. Accident prevention -                  You must have in place satisfactory containment measures to prevent fugitive emissions to surface water, sewer or land and ensure that these are adequately maintained at all times. This requirement applied to all substances present on site and in any quantity.</p>	<p>There are no chemicals stored at the facility. The metal oxides used in the process are non-hazardous and non-reactive. The only addition to the metal oxides is water.</p> <p>In the event of a spill or leak, this would comprise of either water, or water which contains metal oxide particles which would not be hazardous or reactive.</p> <p>The facility is within an enclosed unit, with impermeable flooring impervious to leaks and spills with a sealed drainage system.</p> <p>The equipment installed will be state of the art and installed by a qualified engineer. During operation, if an equipment failure is identified, operations will cease immediately to identify the fault. Any repairs will be carried out by a suitably qualified person. A defects log will be maintained to record and register any issues encountered, and detail of any remedial actions taken. The log will be held on site and electronic copies made.</p> <p>Staff will undergo training suitable for their role and responsibilities. Refresher training will be delivered to staff in accordance with Nyobolt's training policy.</p> <p>Incoming raw materials and outgoing products will arrive and leave the site in secure containment.</p>
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<p>H. Noise -</p> <p>There must be only a low potential for causing offence due to noise. An installation will not be considered as a low impact installation if it may give rise to noise noticeable outside the installation boundary. This requires the exercise of judgement, taking account of any history of noise complaint arising from the installation and consideration of the likely offsite noise levels and proximity of sensitive receptors.</p> <p>Describe the main sources of noise from the installation, the nearest noise sensitive locations any relevant noise measurement surveys which have been undertaken; and the proposed techniques and measures for the control of noise. Provide justification that there is only a low potential for offence due to noise.</p>	<p>All operations will be carried out inside the building.</p> <p>For the health and safety of staff, a noise attenuation screen will be placed around the dry milling equipment. Given the site is located on a large industrial estate with no nearby sensitive receptors, e.g. residential, the risk of noise causing offence is considered very low and very unlikely to arise beyond the installation boundary.</p>
<p>I. Emissions of polluting substances -</p> <p>Justify that there will be no likelihood of a release to the environment of any particular substance from the whole installation at a rate greater than that determined as insignificant as set out in our guidance note (see <a href="#">Control and monitor emissions for your environmental permit - GOV.UK</a>).</p> <p>Describe the nature, quantities and sources of foreseeable emissions from the installation.</p>	<p>Emissions testing has been undertaken for the emission point from the furnace to outside of the building. The emissions testing report is provided in Appendix 2.</p> <p>This emission testing demonstrated that the risk is so low, abatement is not required.</p> <p>The H1 Screening Tool has been completed, and the outcome confirms that no additional air quality modelling or further assessment is required.</p>

<p>J. Odour -</p> <p>There must be only a low potential for giving offence due to odour. An installation will not be considered as a low impact installation if it may give rise to an offensive smell noticeable outside the installation boundary. This requires the exercise of judgement, taking account of any history of odour complaint from the installation and whether this class of activity is known by experience to give rise to smells. A significant possibility or actual history of excursions or fugitive emissions, for example from stored materials, would suggest that the installation could not be treated as having a low impact. Provide details of potential sources of odour from the installation, for example from stored materials, and justify that there is only a low potential for offence due to odour.</p>	<p>The metal oxides used in the process are inherently low odour materials. No organic chemicals are added during the production process, only water. The risk of odour from the operations is considered extremely low.</p>
<p>K. Compliance history -</p> <p>If any of the following enforcement actions have taken place at the same installation under the same management (and where appropriate, have not been overturned on appeal), then it will not normally be considered further as a low impact installation:</p> <p>Prosecution*</p> <p>Formal caution*</p> <p>Suspension notice*</p> <p>Enforcement notice relating to an actual or potential environment incident*</p> <p>*(All under EPR or the equivalent under previous environmental regimes)</p>	<p>Nyobolt Limited are a new operator and have no history of enforcement actions being taken against them. There is no history of enforcement action being taken at the facility.</p>

## **Decision considerations**

### **Confidential information**

A claim for commercial or industrial confidentiality has been made.

We have accepted the claim for confidentiality.

The confidentiality request has been submitted on behalf of Nyobolt Limited.

We have excluded references to name of the product and have referred to it as Product A. In addition, we have excluded process flow schematic and furnace specification.

We consider that the inclusion of the relevant information on the public register would prejudice the applicant's interests to an unreasonable degree.

We have not excluded raw material information from the public register whereby these relate to emission data.

The decision was taken in accordance with our guidance on confidentiality.

### **Identifying confidential information**

We have not identified information other than that requested by the applicant which were provided as part of the application that we consider to be confidential.

The decision was taken in accordance with our guidance on confidentiality.

### **Consultation**

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations 2016 and our public participation statement.

The application was publicised on GOV.UK website.

### **Operator**

We are satisfied that the applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.



## **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', Appendix 2 of RGN2 'Defining the scope of the installation' Appendix 1 of RGN2 'interpretation of Schedule 1'.

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**

The operator has provided a plan which we consider to be satisfactory.

These show 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 satisfactory. The decision was taken in accordance with our guidance on site condition reports.

## **Nature conservation, landscape, heritage, and protected species and habitat designations**

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is not within our screening distance for these designations.

## **Environmental risk**

We have reviewed the operator's assessment of the environmental risk from the facility. They have demonstrated that they meet all of the low impact installation criteria and can be considered a low impact installation.

The operator has submitted an assessment of the impact of potential emissions to air of metals from the installation using the H1 screening method. As the tool does not include Environmental Assessment Levels for the substances involved, the assessment justified the use of a similar metal as a proxy substance.

We have reviewed the submitted assessment and agree with the overall conclusion of insignificance.

The operator's risk assessment is satisfactory.

## **Low impact installation criteria**

We have reviewed the assessment provided by the operator to demonstrate that the facility can meet the low impact installation criteria.

The operator's assessment shows that the facility satisfies the low impact installation criteria as specified in the Environment Agency's Environmental Permitting application form guidance notes at the time the permit application was duly made.

## **General Operating techniques**

We have reviewed the techniques proposed by the operator and compared these with the low impact installation criteria and we consider them to represent appropriate techniques for the facility.

The operating techniques that the applicant must use are specified in condition 2.2.1 in the environmental permit.

## **Emission limits**

We have decided that emission limits are not required in the permit.

## **Monitoring**

We have decided that annual monitoring should be carried out for the following parameters listed in the permit, using the methods detailed and to the frequencies specified.

Emission point A1 - Niobium Pentoxide

Emission point A1 - Tungsten Oxide

These monitoring requirements have been imposed in order to ensure that they meet the requirements of low impact installation.

We made these decisions in accordance with relevant guidance.

Based on the information in the application we are satisfied that the operator's techniques, personnel and equipment have either MCERTS certification or MCERTS accreditation as appropriate.

## **Reporting**

We have specified reporting in the permit.

We made these decisions in accordance with relevant guidance.

## **Environment Management System**

We are not aware of any reason to consider that the operator will not have the management systems to enable it to comply with the permit condition. The decision was taken in accordance with guidance on Operator Competence and how to develop a management system for environmental permits.

## **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**

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.