

Immingham Green Energy Terminal Green Hydrogen Production Facility

EPR/VP3425SV/A001
Environmental Permit Application
Noise Management Plan

Environmental Permitting (England and Wales) Regulations 2016

Applicant: Air Products (BR) Ltd

April 2024

Environmental Permitting (England and Wales) Regulations 2016

Immingham Green Energy Terminal Green Hydrogen Production Facility

Environmental Permit Application

Appendix H- Noise Management Plan

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Immingham Green Energy Terminal Environmental Permit Application – Noise Management Plan





GLOSSARY

Abbreviation	Definition
APBRL	Air Products (BR) Limited
ABP	Associated British Ports
BAT	Best Available Techniques
DCO	Development Consent Order
EA	Environment Agency
EIA	Environmental Impact Assessment
EMS	Environmental Management System
EP	Environmental Permit
H ₂	Hydrogen
HPU	Hydrogen Production Unit
IGET	Immingham Green Energy Terminal
ISO	International Standards Organization
Km	kilometre
NIA	Noise Impact Assessment
NH3	Ammonia
NMP	Noise Management Plan
NSIP	Nationally Significant Infrastructure Project
NSR	Noise Sensitive Receptors
OS	Ordnance Survey
UK	United Kingdom



1 Introduction

1.1 Requirement for a Noise Management Plan

This Noise Management Plan (NMP) has been prepared by AECOM on behalf of Air Products (BR) Limited (APBRL), referred to as 'the Operator', in support an Environmental Permit application for the proposed Green Hydrogen (H₂) Production Facility ('proposed installation'). The proposed installation forms part of the wider Immingham Green Energy Terminal ('IGET') Nationally Significant Infrastructure Project (NSIP) being developed by Associated British Ports ('ABP').

It should be noted that the Environmental Permit application and consequently this NMP is being carried out prior to completion of detailed design of the plant. As such, some worst-case assumptions have been applied to the assessment, which may lead to an over-prediction of the potential impacts. At the detailed design stage, opportunities to reduce the predicted *specific sound levels* further will be explored and APBRL will continue to ensure that Best Available Techniques (BAT) mitigation is applied to the plant design. Following detailed design, it is proposed that this NMP is reviewed, updated, and resubmitted to the Environment Agency (EA), if required, through a pre-operational condition to be included in the Environmental Permit.

The NMP has been prepared following the Environment Agency's Noise and Vibration Management: Environmental Permits¹ guidance.

A Noise Impact Assessment (NIA) was produced by AECOM dated March 2024, which has been submitted as part of the Environmental Permit application.

The NIA concluded that with the additional mitigation measures incorporated into the design, the proposed installation would have a low impact on nearby Noise Sensitive Receptors (NSRs).

The aim of the NMP is to ensure that noise arising from the proposed installation is adequately controlled by committing to good practices for the procurement, operation and maintenance of plant and equipment at the site. It also commits APBRL to the mitigation measures detailed in the NIA.

More specifically, this NMP addresses the following:

- the materials and/or activity which could produce noise and the potential sources of noise emissions:
- identification of potential noise sensitive receptors (NSRs);
- process controls and procedures;
- potential corrective actions:
- complaints procedure; and
- record keeping.

¹ Noise and vibration management: environmental permits - GOV.UK (www.gov.uk)

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The NMP also provides a management framework comprising of proactive and reactive measures to manage and control potential noise from the proposed installation. The proactive approach will facilitate the development of operational procedures and controls as part of an on-going commitment to improving environmental performance. Reactive procedures will also be established within the NMP for the logging, evaluation and implementation of corrective actions in the unlikely event of any noise related complaints being received.

The overall responsibility for ensuring compliance with the NMP lies with APBRL as the operator of the proposed installation, with the site manager, the nominated person with responsibility for the NMP. The NMP will form part of APRBL's Environmental Management System (EMS) for the proposed installation.

APBRL take community needs and concerns into account when considering major development. In this respect, this NMP reflects the requirements considered appropriate to minimise environmental noise impacts associated with the proposed installation.

The NMP is a live document and will be reviewed for adequacy and relevance at least annually (unless, otherwise agreed with the EA).

The NMP does not refer in detail to operational vibration because no adverse effects are anticipated at sensitive receptors off-site. Nevertheless, this topic shall be kept under review and included in future revisions if considered necessary.



2 Description of the Site and Process

2.1 Site Location and Setting

The proposed installation comprises the development of a green H2 production facility which includes infrastructure for the offloading and transfer of green ammonia (NH3) from ships to ammonia storage facilities, the main H2 production facility and vehicle and trailer H2 refuelling facilities.

The proposed installation will be located in North East Lincolnshire on the south bank of the Humber Estuary on the eastern side of the Port of Immingham. The installation location will be approximately centred on National Grid Reference (NGR) E520783 N415271.

2.2 Description of the Process and Development Phasing

The environmental permit application is therefore for an H2 production facility which comprises the following within the installation boundary:

- NH₃ ship offloading infrastructure to facilitate the receipt of NH₃ for H₂ production.
 The offloading infrastructure will be located on a new jetty being constructed by
 Associated British Ports (ABP). Only the offloading infrastructure is incorporated in
 the application and the jetty itself remains outside the installation boundary.
- NH₃ transfer pipeline which links the ship offloading infrastructure with the NH₃ storage tanks located on the east site.
- East site which comprises:
 - a. a NH₃ storage tank and related plant including an NH₃ tank flare stack and boil-off gas compression system to liquefy the generated boil-off gas during offloading from Ship and static boil-off from Ammonia Tank-.
 - b. H₂ production facility comprising up to three H₂ production units including associated flue gas and flare stacks.
 - c. Power distribution buildings for NH₃ and H₂ production plantH2.
 - d. Instrumentation buildings for NH₃ and H₂ processes.
 - e. Analyser shelters for the H₂ production plant.
 - f. Pipe-racks, pipelines, pipes, utilities and other infrastructure associated with both NH₃ and H₂ equipment.
 - g. Welfare facility.
- West site which comprises:
 - a. H₂ production facility comprising up to three H₂ production units including associated flue gas and flare stacks.
 - b. Up to four liquefier units.
 - c. H₂ storage tanks.
 - d. H₂ trailer filling stations.
 - e. H₂ vent stack and associated process equipment.
 - f. H₂ vehicle and trailer filling stations.
 - g. H₂ compressors and associated process equipment.
 - h. Control room and workshop building.
 - i. Security and visitor building.
 - j. Contractor building.
 - k. Warehouse.



- I. Driver administration building.
- m. _Safe haven building.
- n. Electrical substation and metering station.
- o. Power distribution buildings.
- p. Process instrumentation buildings.
- q. Analyser buildings.
- r. Process and utility plant including cooling towers and pumps, fire water tank, instrument air equipment, pipe racks, pipelines, pipes, cable racks, utilities and other infrastructure nitrogen generation package (HPN) with LIN Tank and LIN Vaporizers and steam generation package.
- Pipeline corridor for underground pipelines, pipes, cables and other conducting media for the transfer of NH₃, H₂, nitrogen (N₂) and utilities, with cathodic protection against saline corrosion.



3 Potential Noise Sources, Materials and Processes

3.1 Sources of Noise

The operational facilities and equipment associated with the proposed installation are located within the West Site and East Site, as shown in Figure A1 in Appendix A.

The main significant potential sources of noise emissions from the West Site include:

- Low Noise Cooling Tower
- Nitrogen Generator (24 HPN)
- West Site Utilities including pumps, compressors and Hydrogen Refuelling Station
- LHY1 (Liquifier Areas) x 4
- Hydrogen Production unit (HPU) area x 3
- LHY35 Compressor Building x 4
- Hydrogen Production unit building x 3

The potential sources of noise emissions from the East Site include:

- Hydrogen Production unit area x 3
- Hydrogen Production unit building x 3
- East site utilities instrument air compressor
- East Site Storage area includes transfer pump and boil-off gas compressor package

Details of the sound power levels of the proposed items of plant used in the noise impact assessment for the Proposed Installation are in Appendix B of the Noise Impact Assessment Report. The plant elements with the higher sound power levels are the "Flue Stack (ID Fan)" for a HPU and the Two "N2 Companders" for a Hydrogen Liquefier.

Although the proposed plant will operate 24 hours a day, 7 days a week, not all of the plant will operate all of the time, as operation is dependent upon demand and ambient temperatures. For example, a key source of noise from the plant is associated with cooling, which would only be in full operation in the highest anticipated ambient air temperatures.



4 Potential Receptors

4.1 Considerations for Identifying Noise Sensitive Receptors

Key NSR locations, which are considered representative of the nearest and potentially most sensitive existing receptors to the proposed installation, have been identified based upon knowledge of the local area and professional judgement. It is considered that if noise levels are suitably controlled at these receptors, then noise levels will be suitably controlled at other more distant sensitive receptors in the surrounding area. The NSRs are described in Table 4-1.

With respect to the residential and part residential properties within the installation boundary along Queens Road, given their proximity to the hydrogen production facility on the West Site, their acquisition is proposed in order to secure cessation of the residential use before operation of the West Site commences. Therefore, the residential properties on Queens Road (known as NSR 1 and NSR 2 in the DCO ES Chapter 7 Noise and Vibration) have not been included in this NMP.

On the basis of the above, the nearest identified NSRs during operation of the installation are listed in Table 4-1 and are shown in Figure A1 in Appendix A. For the purposes of this NMP the NSR numbering from the DCO ES Chapter 7 Noise and Vibration have been retained.

Table 4-1: Identified nearest NSRs

NSR ID	Location	Approx. distance and direction from installation boundary (m)
NSR 3	Residential properties at Chestnut Avenue, Waterworks Street and Spring Street (eastern extent of Immingham's residential urban area). For the purpose of this assessment properties in this area have been grouped together and referred to as NSR3.	480 m north-west of the Site Boundary
NSR 4	Residential properties at Somerton Road, Worsley Road, Dunster Walk, Ings Lane, Oakham Walk, Talbot Road and Kendal Road (eastern extent of Immingham's residential urban area). For the purpose of this assessment properties in this area have been grouped together are referred to as NSR4.	460 m west of the Site Boundary

At NSR3 and NSR4 the typical sources of sound likely to influence/dominate the baseline sound environment are the road traffic on the A1173 and A180, more distant industrial/commercial premises to the east of the A1173 (associated with power production, manufacturing, waste and port facilities) and occasional distant aircraft. The land between the NSRs and the proposed development is open fields.



5 Operational and Process Controls

5.1 Noise Management Strategy

Air Products will design the plant layout and select equipment to minimise noise and will include acoustic enclosures and insulation of the pipework, as well as silencers for the vents that are also necessary for safety reasons. The equipment will be maintained in order to sustain the optimal noise performance using performance monitoring and inspection based planned maintenance. Maintenance activities themselves will be carried out with regard to minimising the noise impacts.

Air Products will actively manage traffic on site and loading activities which are optimised via a scheduling and telemetry system to both minimise traffic flow, noise and venting in line with operational/ customer demands for what are often critical industries such as food, medical as well at glass, metals and many others.

The NMP strategy is to minimise releases of noise from the installation through good working practices and the use of suitable process control measures which represent BAT.

The hierarchy of the NMP strategy is;

- 1. Prevent
- 2. Contain
- 3. Minimise

5.2 Noise Control Measures

The potential for sound of a tonal, impulsive or intermittent nature will be designed out of the proposed installation during the detailed design phase by the selection of appropriate plant, building cladding, louvres and silencers/attenuators as necessary.

As part of the operational assessment, the proposed installation was modelled based upon plant data provided by the project design team. Embedded mitigation was incorporated into the noise model including (but not limited to) features on site that are required for the operation of the site but are not explicitly used for acoustic attenuation/insulation. Examples include concrete flood walls, which will provide a level of screening of plant noise from different areas on site, such as from HPUs, Hydrogen Liquefiers and utility areas.

Design decisions, such as the lagging of pipework for on-site plant have also been applied within the operational noise model and form part of embedded mitigation.

Table 5-1 describes the items of plant within the operational noise model that have embedded mitigation attenuation values assigned to them.

Table 5-1: List of embedded mitigation used within the initial operational noise model.

Embedded Mitigation	Item of Plant attenuated by embedded mitigation	Level of attenuation provided (dB)
Concrete Fire Walls	H2 Refuelling Station – Reciprocating Pumps	10

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Embedded Mitigation	Item of Plant attenuated by embedded mitigation	Level of attenuation provided (dB)	
	(West Site)		
Lagging of pipework in accordance with ISO 15665	Intercooler Skids/Oil Removal Skids (all) (West Site)	5	
Concrete Fire Walls/Blast Walls surrounding the "Compression Area"	All items in the "Compression Area" including LP and Bulk Hydrogen High Pressure Compressors, and Air-Cooled Intercooler (West Site)	10	
Concrete flood walls (3 sided)	Boil-off Gas Compressor Package (@ 50%) – With Enclosure (East Site)	10	

Taking account of the above embedded noise mitigation, the worst-case results in the NIA concluded that additional specific mitigation would be required to achieve a BS 4142 outcome of no greater than +5 dB excess of *rating level* over *background sound level*, or lower, at nearby NSRs.

5.3 Additional Specific Noise Mitigation Measures

As stated in the NIA, the contribution at each NSR from each modelled sound source across the proposed installation has been ranked. The potential attenuation required from the source sound power levels of the key noise emitting plant is listed in Table 5-2. These reductions could be achieved either through reduction of sound power level at source or by application of the indicative mitigation measures listed below or other equivalent measures.

During the detailed design stage it may be more practical to apply higher attenuation to some plant items/buildings than the attenuation levels listed in Table 5-2 in order to reduce the attenuation applied to other plant items/ buildings and still achieve the same overall level of reduction (i.e. to achieve a *rating level* no greater than +5 dB above defined *background sound level*). It is also possible that changes will be proposed to plant specifications, or the number of plant required at the installation for normal process function, during the detailed design of the proposed installation progresses this Operational NMP will be updated periodically to reflect the latest mitigation design.

Table 5-2: Attenuation required (dB) from individual plant items

Plant	Location	Quantity	Required attenuation to achieve a <i>rating level</i> no greater than +5 dB above defined <i>background</i> sound level
Individual Items of Plant			
H2 Refuelling Station - Reciprocating Pumps	West Site Hydrogen Refuelling Station	2	30* (10 dB embedded, 20 dB additional)
Two N2 Companders + Lube Oil System	West Site (LHY35) Hydrogen Liquefiers Areas	4	20
Bulk Hydrogen High Pressure Fill Compressor – Glycol Circuit Air Cooler	West Site Compression Area	6	25* (10 dB embedded, 15 dB additional)

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Plant	Location	Quantity	Required attenuation to achieve a <i>rating level</i> no greater than +5 dB above defined <i>background</i> sound level
HP Tube Fill Compressor – Hydraulic Oil Pump Motor	West Site Compression Area	6	25* (10 dB embedded, 15 dB additional)
LP Tube Fill Compressor	West Site Compression Area	2	25* (10 dB embedded, 15 dB additional)
LP Tube Fill Compressor Motor	West Site Compression Area	2	25* (10 dB embedded, 15 dB additional)
Cooling Tower - Cooling Water Motor Pump	West Site	6	15
Cooling Tower - Cooling Water Pump Motor	West Site	6	15
Cooling Tower Fan Air Outlet	West Site	6	5
Air-Cooled Intercooler	West Site Compression Area	8	10
Chiller for K400A/B/C/D Aftercooler	West Site Compression Area	1	10
Common Air-Cooled Cylinder Jacket Water Cooler	West Site Compression Area	1	10
Intercooler Skids/Oil Removal Skids	West Site Hydrogen Liquefiers Areas	18 x 4 Liquefier Areas	10* (5 dB embedded, 5 dB additional)
Common Air-Cooled Cylinder Jacket Water Cooler	West Site Compression Area	1	10
Intercooler Skids/Oil Removal Skids	West Site Hydrogen Liquefiers Areas	18 x 4 Liquefier Areas	10* (5 dB embedded, 5 dB additional)
Nitrogen Generator (24HPN) Package Expanders Vacuum Can S218 Compressor Inlet Filter Compressor with on skid close-fit enclosure Tepsa Skid C182A/B U004 Process Container U004 Vent	West Site	1 of each item as part of the 24HPN package	10
H2 PSA (West Site Only)	West Site HPU Area	3 x West Site	10
Air Inlet – FD Fan	West and East Site HPU Area	3 x West Site 3 x East Site	10
Flue Stack (ID Fan)	West and East Site HPU Area	3 x West Site 3 x East Site	10
ID Fan	West and East Site HPU Area	3 x West Site 3 x East Site	5



Plant	Location	Quantity	Required attenuation to achieve a <i>rating level</i> no greater than +5 dB above defined <i>background</i> sound level
FD Fan	West and East Site HPU Area	3 x West Site 3 x East Site	5
FD Fan Motor	West and East Site HPU Area	3 x West Site 3 x East Site	5
ID Fan Motor	West and East Site HPU Area	3 x West Site 3 x East Site	5
ID Fan Inlet Ducting (Insulated)	West and East Site HPU Area	3 x West Site 3 x East Site	5
FD Fan Inlet Ducting (Insulated)	West and East Site HPU Area	3 x West Site 3 x East Site	5
NH3 Hydrogen Production Unit – (Work Area No. 7 Only) Burner Pipes: West Wall Only	West Site HPU Area	3 x West Site	5
East Ammonia Storage Boil Off Gas Compressor Package with Enclosure	East Site	2	10
Buildings			
LHY35 Compressor Building - 4 Walls and Roof	LHY35 Compressor Building - 4 Walls and Roof	4 x West site	10
Cooling Tower Air Inlet Face Side A	Cooling Tower Air Inlet Face Side A	1 x West Site	10
Cooling Tower Air Inlet Face Side B	Cooling Tower Air Inlet Face Side B	1 x West Site	10

^{*}The level of attenuation includes "embedded mitigation" which takes into account attenuation that has been already considered and implemented during the initial design phases of the Project.

These reductions could be achieved either through reduction of sound power levels at source or by application of BAT, and general principles include, but are not limited to, the measures set out in the NMP risk assessment and noise control measures set out in Table 5-3.



Table 5-3: NMP Risk Assessment and Control Measures

Potential Source or Pathway	Identified Receptors	Control Measures	Probability	Consequence	Overall Risk
Noisy equipment/ plant	Residential NSRs in Immingham to the North West and West of the proposed installation	Low noise equipment to be procured for the installation where possible and practicable. This applies to all new and replacement equipment.	Medium. Design and selection of equipment should minimise noise emissions	Noise heard at NSRs	Low
Noise from operation of installation	Residential NSRs in Immingham to the North West and West of the proposed installation	 Good working practices at the installation, to include Daily inspection of equipment Maintenance of equipment Closing of doors and windows of building and enclosed areas, where possible Experienced and appropriated trained staff operating the equipment. Avoidance of noisy activities at night if possible All staff being trained in noise management and the prompt reporting of any abnormal noise so it can be investigated and rectified 	Medium Good working practices to help minimise normal and abnormal emissions	Noise heard at NSRs	Low
Noise from installation plant or buildings	Residential NSRs in Immingham to the North West and West of the proposed installation	The following has been considered during the development of the proposed installation and will continue to be considered during the detailed design stage: Use of screening or building to shield receptors from noise sources Reducing the breakout noise from plant through the use of enhanced enclosures, or potentially containing them within a building Orientation of plant within the site to provide screening of low-level noise sources by other buildings and structures, or orientating fans and the air inlets away from NSRs	Medium The control measures should reduce noise emissions	Noise heard at NSRs	Low
Noise from installation plant, including plant requiring	Residential NSRs in Immingham to the North West and West of the proposed installation	Further noise control of plant and equipment will continue to be considered during the detailed design of the installation. This includes:	Medium The control measures should reduce noise emissions	Rating level from the site greater than +5dB above the	Low



Potential Source or Pathway	Identified Receptors	Control Measures	Probability	Consequence	Overall Risk
additional mitigation		Reducing air inlet noise emissions by the addition of further in-line attenuation;		representative background	
		Reducing stack outlet noise emissions by the addition of silencers or sound proofing panels;		sound level.	
		Reducing fan cooler emissions by screening, re-sizing, fitting low noise fans or attenuation;			
		Use of anti-vibration supports and interconnections for equipment			
Noise from Vehicle movements and loading/unloading	Residential NSRs in Immingham to the North West and West of the proposed installation	To minimise noise from vehicle movement and loading/ unloading the following actions will be taken: Ioading/ unloading of vehicles and movement of equipment and materials around the site is conducted in such a manner that minimises noise generation, and where practical, is conducted away from noise sensitive receivers and screened by buildings. Materials will be moved and lowered carefully and not dropped; delivery and dispatch by road are scheduled to avoid as many vehicle movements as possible at night;	Medium Management of vehicle movements and loading/ unloading should minimise noise emissions	Noise heard at NSRs	Low
Noise from venting from the filling of tankers and LHY Unit	Residential NSRs in Immingham to the North West and West of the proposed installation	Where possible the duration and frequency of the venting will be kept to a minimum.	Medium	Noise heard at NSRs	Medium/Low

5.4 Training

Appropriate training will be provided to all APBRL employees in relation to the awareness and management of environmental noise. Personnel with specific noise control responsibilities (e.g. ensuring that consideration of noise in included in the procurement process) will be provided with training relevant to their responsibilities. Training in the use of noise measurement equipment shall also be given to any personnel undertaking this task. Records will be kept of training provided on environmental noise issues.



6 Noise Monitoring

6.1 Noise Monitoring Schedule

As part of the daily inspections of the installation, perceived changes in noise emissions or character will be logged and investigated to determine if the plant is operating correctly and under normal conditions.

Once each of the six phases of the development become operational, noise monitoring will be undertaken to verify that the effects of noise on NSRs identified in Section 4 are no worse than predicted (with mitigation) in the NIA and as identified in Chapter 7 of the Environmental Statement which was prepared as part of the DCO application.

Noise monitoring will be undertaken at locations representative of the NSRs. Weather conditions and details of audible noise sources will also be noted along with the measured levels.

If the noise levels from the proposed installation exceed the predicted noise levels at the NSRs, the source or sources of the noise will be investigated, and corrective and preventive measures identified. These measures will be recorded and follow up monitoring will be undertaken to check the effectiveness of the mitigation measures. This will confirm if the mitigation measures are adequate or if further measures are required. Suitable representative noise monitoring location(s) will be agreed with the EA.

Records of the noise monitoring will be kept as part of the EMS.



7 Emergency Scenario Contingency

7.1 Introduction

This section sets out the actions that will be taken to minimise the impacts of noise during irregular or emergency situations at the installation.

7.2 Emergency Scenarios and Contingency Measures

The following items of plant have been included in the design of the proposed installation for 'emergency use' to keep the installation operating in the event of power or plant failure.

- a) 600 West Utilities
 - Diesel Generator Sets and Diesel Generator Set Exhausts
 - Diesel Drivers and Diesel Driver Exhausts
 - Firewater Pumps, Firewater Pump Motors and Firewater Jockey Pump Motors
- b) 741 East Utilities
 - Diesel Drivers and Diesel Driver Exhausts
 - Firewater Pumps, Firewater Pump Motors, Firewater Jockey Pump and Firewater Jockey Pump Motor
- c) 231 LHY1 Area
 - Diesel Generator Sets and Diesel Generator Set Exhausts
- d) 741 Storage Area
 - Flare

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Where possible the duration of the emergency plant will be kept to a minimum through prompt attention to resolving power outages or plant failure.



8 Complaints

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8.1 Community Liaison

It is acknowledged that the occupiers of nearby NSRs may perceive the noise differently than APBRL, and good engagement and community liaison is an essential step in managing noise.

Nearby NSRs have been informed about the proposed installation through consultation events. APBRL will continue to engage and liaise with the local community via:

- Newsletters
- Website with information about the proposed installation and development
- Meetings with community leaders
- Informing the local community about any planned and unavoidable noisy activities
- Publicising the complaints procedure and contact details

8.2 Response to Complaints

A complaints response procedure will be operated by APBRL. Any complaint received about noise will be forwarded to APBRL nominated complaints response office for investigation and action.

APBRL will gather as much information as possible from the complainant including:

- Date and time of issue first identified
- Location of the complaint
- Complainant contact details
- Details of the complaint e.g.:
 - Frequency/ duration of the issue
 - description of the noise.

APBRL will respond to the complainant as soon as practicable and within a reasonable time following receipt of the complaint and will keep the complaint fully informed of the actions taken and the timescales for any actions which still need to be taken to deal with their complaint.

8.3 Complaint investigation

The complaint investigation will include the following:

- Site inspection to establish if the noise can still be observed;
- Review of site operations to check for any irregular or unusual activities which might have given rise to noise related to the complaint;
- Review of weather conditions at the time of the complaint;



 Speaking with operators at the installation at the time of the complaint occurred and determine if there were any changes to normal operating conditions.

Corrective and preventive measures shall be implemented if the complaint is substantiated. The type and level of corrective and preventative measures will be dependent on the root cause and scale of the noise source.

8.4 Records

Records of all complaints will be kept as part of the EMS. The information recorded will include:

- An overview of the complaint, including NSRs potentially affected.
- Details of investigation and actions taken (if necessary)
- Follow up to close out the complaint or any preventative and corrective measures if required.
- Response to the complainant.

The records will be reviewed as part of Management Review meetings.



9 NMP Review

The NMP is a live document and will be reviewed for adequacy and relevance at least annually (unless, otherwise agreed with the EA) by APBRL site manager for the proposed installation.

Then reviews will take into account the following:

- Site records;
- Compliance records;
- Complaints history; and
- Any recent new NSRs or sensitive developments in the vicinity.

The NMP will be amended as necessary following the review, including any changes to the control measures.



Appendix A Noise Sensitive Receptors and Site Plan

Monitoring Locations

The nearest noise sensitive receptors are shown on Figure 7.1. The drawing focuses on the West Site where receptors are located.

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AECOM

PROJE

Immingham Green Energy Terminal

CLIENT

Associated British Ports Air Products (BR) Limited

CONSULTANT

AECOM Limited 5th Floor 2 City Walk Leeds, LS11 9AR

LEGEND

Permit Installation Boundary



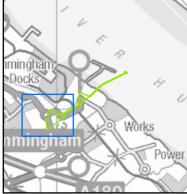
NSR Assessment Location

NSR1

O NSR2

NSR3

NSR4



NOTES

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ISSUE PURPOSE

Environmental Statement

PROJECT NUMBER

60673509

DEVELOPMENT CONSENT ORDER NO

TR030008

FIGURE TITLE

Sound Monitoring Locations

FIGURE NUMBER

Figure 7.