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Corby ERF

Draft Noise Management Plan

Document approval

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Noise Management Plan

Site details

Site name:	Corby ERF
Site address:	Shelton Road, Willowbrook East Industrial Estate, Corby, NN17 5XH
Operator name:	Encyclis Limited
Permit number:	EPR/LP3644QK/A001

Who this plan is for

Encyclis Limited (Encyclis) is applying for an Environmental Permit (EP) to operate an Energy Recovery Facility (ERF) at Corby. A Noise Impact Assessment (NIA) (RSK report 2061667-RSKA-RP-001(06), dated 4th July 2023) has been prepared to support the EP application. This draft Noise Management Plan (NMP) has been prepared in support of the EP application and NIA.

In its current form, the draft NMP is for the Environment Agency (EA) officers determining the EP application. The detailed design and engineering of the ERF will be completed at a later date. The intent is to review the NMP once the detailed engineering of the plant is completed to reflect the final design of the ERF, and to update the NMP once the ERF is in operation.

This draft NMP provides:

- an overview of the Corby ERF, including potential noise sources and sensitive receptors;
- a description of the management techniques proposed to be implemented at the ERF to achieve the noise emissions predicted by the NIA through its operational life;
- an outline of the anticipated noise monitoring to be completed during the operation of the ERF; and
- an outline of the measures for responding to any complaints received.

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1 Introduction

1.1 Site description

The Corby ERF is an Energy from Waste (EfW) facility which will process up to 357,408 tonnes/year of residual non-hazardous municipal solid waste and similar commercial and industrial wastes.

The ERF will be located off Shelton Road, to the north-east of Willowbrook Industrial Estate, Corby (centred on approximate National Grid Reference 490919E, 290857N), in a light industrial setting approximately 2.2 km north-east of Corby town centre. The site is currently unoccupied, and consists of an unused area of hardstanding, formerly used as a car park. The area directly to the west and south-west is currently still in use as a car park associated with the adjacent used car dealership, with Shelton Road bounding the site to the east. The area surrounding the proposed site location includes further industrial / commercial units in all compass point directions, and the A43 and A427 roads.

The ERF consists of a single waste processing stream rated at 100.5 MW thermal input, comprising the following major components:

- an enclosed waste reception hall and waste storage bunker;
- an enclosed boiler hall that houses a conventional moving grate combustion unit and waste heat recovery boiler;
- an enclosed flue gas treatment (FGT) system;
- a single stack;
- a turbine hall housing a single steam turbine generator;
- a single air-cooled condenser (ACC);
- enclosed bottom ash and flue gas treatment residue storage facilities;
- ancillary systems including auxiliary firing, water treatment, compressed air, process cooling, ventilation, fire detection and protection and electrical systems; and
- welfare, workshop, and office facilities.

Waste deliveries are proposed between 7am and 7pm and the ERF will operate over 24 hours a day, 7 days a week. Various activities operate during daytime hours only, details of which are included in section 3 and 4 of this plan. Access to the site will utilise the existing (previous) site access off Shelton Road. Loading of heavy goods vehicles (HGVs) at the site will be undertaken along the western and northern areas of the building, with car parking proposed to the east (adjacent to the site entrance).

1.2 Maintenance and review of the NMP

Responsibilities and procedures for maintenance and review of the NMP are summarised as follows:

- The Plant Manager will be responsible for the NMP and for ensuring people are trained.
- The NMP will be part of the ERF's Environmental Management System (EMS) and will be stored both electronically and in hard copies in the ERF control room.
- The NMP will be reviewed every 12 months as part of the annual review of the site EMS (including the procedures and plans which make up the EMS).

- All site staff will be trained on the contents of the NMP as part of their EMS induction when joining the site. Any site staff members assigned to be responsible for noise monitoring will receive additional training on how to undertake this in accordance with the requirements of the NMP. Monitoring results would be quantified using '*BS 4142: Methods for rating and assessing industrial and commercial sound*'.
- It is expected that the EMS manager will deliver the training as part of the EMS induction when a new staff member joins the site. 'Refresher' EMS training may be imposed on a periodic basis, the regularity of which will be confirmed when developing the site-specific EMS in detail.
- A dedicated complaints procedure will form part of the site EMS, to be developed prior to the commencement of operations at the site. A summary is provided in section 5. It is expected that the site EMS manager will be responsible for maintaining records of complaints and associated investigations due to noise on-site.
- Designated staff member(s) will be trained in carrying out noise monitoring. Noise monitoring would be undertaken using a sound level meter, with measurements recorded at the monitoring position during site operating hours for an agreed duration that gives a suitable sample of the activity in question.

1.3 Relevant sector guidance on which this NMP is based

The following guidance has been used when developing the NMP. This list will be updated as required when reviewing the NMP on a regular basis, and as and when guidance is updated or new guidance is issued:

- EA '*Noise Management Plan Template*' V1.1 26/05/2022;
- EA guidance '*Noise and vibration management: environmental permits*', last updated 31 January 2022;
- Waste Incineration BREF BAT conclusions, published December 2019; and
- Other guidance listed in section 2 (Legislation, Standards and Guidance) of the NIA prepared by RSK Acoustics.

2 Receptors

2.1 Receptors list

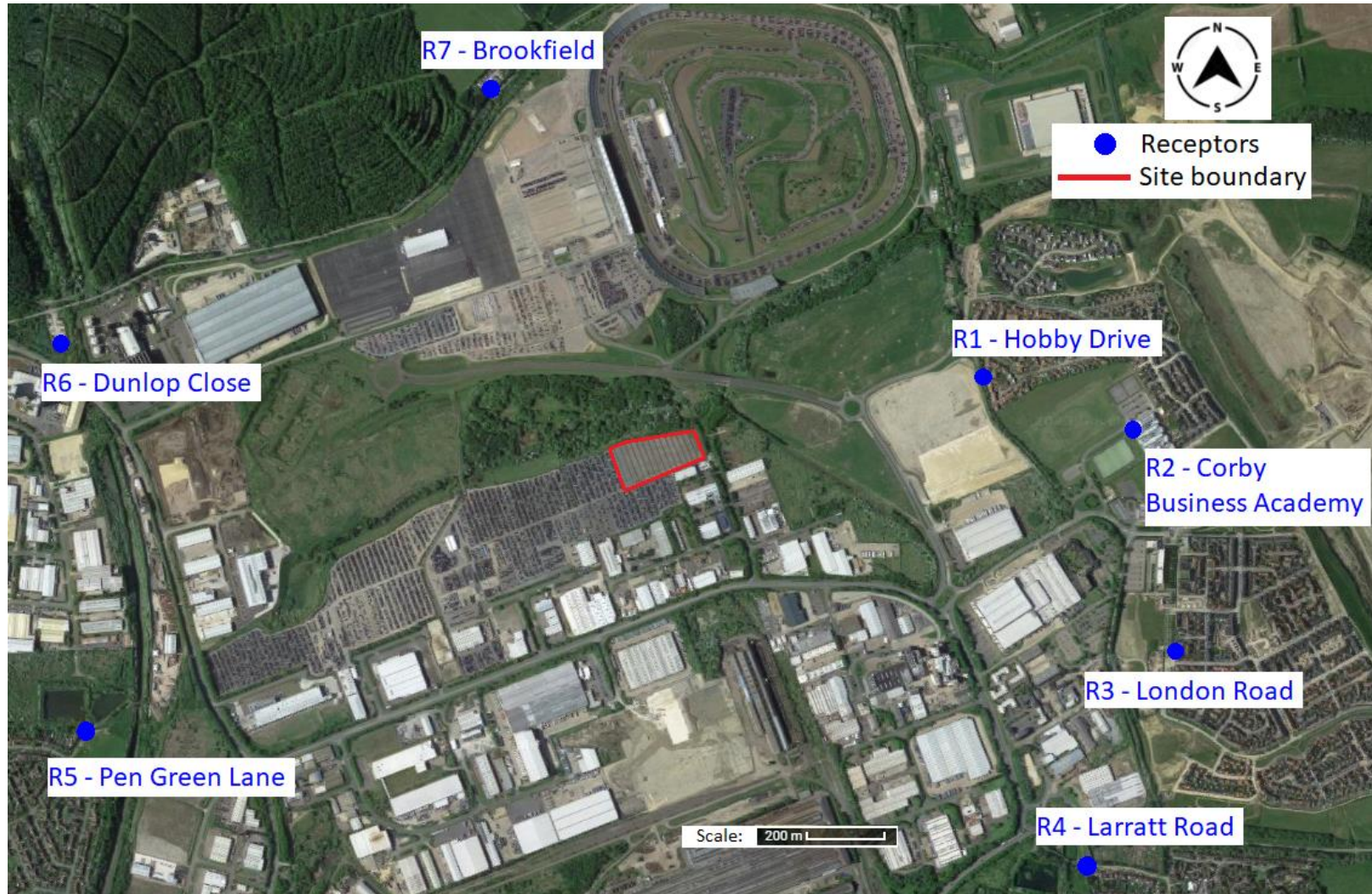
The closest noise sensitive receptors are located greater than 850m from the site and, in many cases, substantially screened by existing commercial / industrial premises within the wider Willowbrook Industrial Estate. The key noise sensitive receptors are identified in the table below, along with an indication of the distance to the centre point of the ERF.

Table 1: Receptor list

Receptor reference	Land use	Direction from site	Approximate distance to site boundary (m)
R1 - Hobby Drive	Residential	East	875
R2 - Corby Business Academy	Educational	East	1,230
R3 - London Road	Residential	South east	1,445
R4 - Larratt Road, Weldon	Residential	South east	1,560
R5 - Pen Green Lane	Residential	South west	1,650
R6 - Dunlop Close Travellers Site	Residential	West	1,560
R7 - Brookfield Travellers Site	Residential	North west	1,020

Figure 1 presents the boundary of the Corby ERF and location of the nearest identified receptors.

Figure 1: Map of site location and receptors



3 Noise sources and processes

3.1 Noise Impact Assessment conclusions

A NIA¹ was undertaken by RSK Acoustics on behalf of Encyclis Limited to support the Corby ERF EP application.

Baseline noise measurements were undertaken at six locations, encompassing both long-term and short-term periods, covering the closest noise sensitive receptors to the ERF. The NIA compared the predicted rated noise levels of proposed fixed plant and HGV movements (see section 3.2) against the derived background noise level at the considered noise sensitive receptors (listed in section 2.1).

When compared to the derived background noise levels, the rated predicted noise levels during normal operating conditions are consistent (i.e. 0 dB difference) with the background (as a worse case) at the closest noise sensitive receptors. In accordance with BS 4142: 2014+A1: 2019, where the rating level does not exceed the background sound level, this is an indication of the development having a low impact on the existing (and nearest) sensitive receptors.

During 'other than normal operating conditions' the predicted noise levels are likely to exceed the background sound levels during night time periods by:

- a maximum of 4 dB at one receptor (Larratt Road);
- a maximum of 3 dB at one receptor (Hobby Drive); and
- a maximum of 2 dB at one receptor (Brookfield Traveller Site).

The above exceedances are below the threshold of +5 dB which, according to BS 4142, may be indicative of an adverse impact. It should also be noted that OTNOC were modelled in the NIA using a worst-case scenario with all OTNOC sources operating concurrently and in addition to the sources operating during normal conditions. The NIA results indicate that noise from the ACC steam headers during turbine bypass operation and plant start up is likely to be the dominant noise source at each of the assessed receptors.

Based on the noise modelling and influence of plant at the receptor locations, an assessment has been made of the Best Available Techniques (BAT) on site to determine where improvement measures can be implemented. The BAT assessment shows that no further noise control measures are considered appropriate for the proposed plant, with the design already embedding various mitigation measures (BAT).

3.2 Noise sources

Table 2 identifies the sources of noise under normal operating conditions for the ERF. The values used are the assumptions which were incorporated in the noise model used by RSK Acoustics to prepare the NIA. These noise emissions are typical values and may change during the detailed engineering of the ERF, with the NMP being reviewed during the engineering process and updated once the ERF is in operation.

A high-level overview of the noise processes and emissions, including a draft site plan indicating the location of the noise sources listed in Table 2, is provided in section 3.3. The size (physical dimension of each of the noise sources) can be found in the NIA and the associated 3D model.

¹ RSK Acoustics, Report 2061667-RSKA-RP-001(06), dated 4th July 2023.

Table 2: Description of noise emitting processes

Noise source	Sound level - dB(A)	Type ²	Operational conditions	Additional comments
Tipping hall building	85.3	IRSPL	07:00 – 19:00	Building cladding will have 35 dB Rw ³ . The tipping hall building includes 82.5 m ² door on north elevation, with 10 dB Rw. It is expected that the door will be open 07:00 – 16:00.
Bunker hall building	85.3	IRSPL	24 hours	Building cladding will have 35 dB Rw.
Boiler house building	85.2	IRSPL	24 hours	Building cladding will have 35 dB Rw. The boiler house building includes 56 m ² louvres on north and south elevations, with 15 dB Rw. The building includes 16 m ² door on north elevation, with 10 dB Rw (normally closed).
Blowdown tank steam vent	80.1	SPL @ 1 m	24 hours	Vent located on boiler house roof.
Ash loading annex building	75.4	IRSPL	24 hours	Building cladding will have 35 dB Rw. The ash loading annex includes two no. 18 m ² doors with 10 dB (assumed open 07:00 - 17:00). The annex includes vent of dimensions 750 x 750mm located at ca. 10m level, with 15 dB Rw.
FGT building	85.2	IRSPL	24 hours	Building cladding will have 35 dB Rw. The FGT building includes 3 louvres (28 m ² on west elevation, 40 m ² on south elevation, 20 m ² on north elevation) with 15 dB. The building includes 16 m ² door with 10 dB (normally closed).

² IRSPL – internal reverberant sound pressure level within buildings

SPL – sound pressure level at a known distance from the source

SWL – sound power level of the source

³ Weighted sound reduction index.

Noise source	Sound level - dB(A)	Type ²	Operational conditions	Additional comments
FGT silos	84.9	SPL @ 1 m	24 hours	Operational noise from the top of silos. The silos have cladded screen on 3 sides, with 25 dB Rw.
Stack	83.1	SWL	24 hours	Emission point at the top of the stack.
Turbine hall building	95.0	IRSPL	24 hours	Building cladding will have 35 dB Rw. The turbine hall building includes 42 m ² louvre on south elevation, with 15 dB. The building includes 18 m ² door with 35 dB Rw (normally closed).
Turbine exhaust duct	97.1	SWL	24 hours	Surface of the duct to the condenser.
Air cooled condenser - Cooling fans	92.0	SWL	24 hours	Noise from each of 6 fans.
Air cooled condenser - Condensate pumps	80.2	SPL @ 1 m	24 hours	One duty condensate pump.
Fin fan cooler (turbine oil system cooler)	95.0	SWL	24 hours	Total noise.
Transformer	71.1	SPL @ 1 m	24 hours	Total noise.
Emergency diesel generator	82.0	SPL @ 1 m	30 mins/week	Diesel engine within the container. Assumed 30 mins weekly testing.
Office and welfare building	45.0	IRSPL	24 hours	Building cladding will have 35 dB Rw.
Vehicles - Vehicle engines	108.0	SWL	07:00 – 19:00	Sound power level from HGVs to / from site.

Table 3 below identifies the additional sources of noise that are present during ‘other than normal operating conditions’ (OTNOC). The indicative location of the OTNOC noise sources is marked in the plant layout provided Figure 3 (numeric reference in ‘Source’ column refers to the location of the noise source in Figure 3).

Table 3: Sources of noise during OTNOC

Area	Source	Sound level – dB(A)	Type	Operational conditions
Reception hall	-	-	-	-
Bunker hall	-	-	-	-
Boiler house (all sources located on the roof)	Start-up vent (#39)	80.0	SPL @1 m	For part of the start-up cycle until conditions are reached to recover steam in the condenser (< 8 hours). On average may occur 2 to 4 times per year.
	Relief vent (#40)	80.0	SPL @1 m	For period where excess pressure is within the steam boiler (< 1 hour). On average may occur once per year.
	Feedwater tank relief (#41)	80.0	SPL @1 m	For periods where excess pressure is within the steam space within the tank (< 1 hour). On average may occur less than once per year.
	Deaerator outlet vent pipe (#42)	80.0	SPL @1 m	For periods of excess pressure within the deaerator (< 1 hour). On average may occur less than once per year.
	Desuperheater steam start-up outlet (#43)	80.0	SPL @1 m	For periods within the start-up sequence of the desuperheater (< 1 hour) On average may occur 2 to 4 times per year.
	Superheater steam start-up exhaust (#44)	80.0	SPL @1 m	For periods within the start-up sequence of the plant required to achieve the superheated steam conditions (< 1 hour) On average may occur 2 to 4 times per year.
Ash loading annex	-	-	-	-
FGT hall	-	-	-	-
FGT silos	-	-	-	-
Stack	-	-	-	-

Area	Source	Sound level – dB(A)	Type	Operational conditions
Turbine hall	Turbine bypass valve (#45)	105.0	IRSPL	Operated during start-up of the ERF and interruption of the steam turbine generator (< 8 hours). On average may occur 2 to 4 times per year.
	Hogging ejector vent (#46)	80.0	SPL @1 m	Hogging ejector vent until conditions are achieved to change to holding ejectors (< 1 hour). On average may occur 2 to 4 times a year. Located on the roof.
	Steam turbine warm-up line (#47)	80.0	SPL @1 m	For periods within the start-up sequence to warm up the steam turbine at the designated rate (< 8 hours) On average may occur 2 to 4 times per year.
	Gland steam bypass vent (#48)	80.0	SPL @1 m	For periods of fault within the gland steam condenser (< 8 hours) On average may occur 2 to 4 times per year.
Turbine exhaust duct	Relief valve (#49)	80.0	SPL @1 m	For periods where excess pressure is within the steam duct (< 1 hour). On average may occur once every 10 years.
Air cooled condenser	ACC steam headers during bypass and start up (#50)	80.0	SPL @1 m	During turbine bypass operation and start up (< 8 hours). On average may occur 4 to 8 times a year.
Turbine oil system cooler	-	-	-	-
Transformer	-	-	-	-
Fire pump building	Diesel pump within the building	105.1	IRSPL	Assumed 30 mins weekly (daytime) testing. Fire pump building has cladding with 35 dB Rw.
Emergency diesel generator	EDG exhaust during continuous operation of the diesel engine (#51)	69.0	SPL @7 m	Until either the local electricity distribution network or steam turbine generator is restored (< 24 hours). On average may occur once every year (in the event of interruption to the local electricity distribution network and steam turbine generator).

Area	Source	Sound level – dB(A)	Type	Operational conditions
Office and welfare	-	-	-	-
Vehicles	-	-	-	-

3.3 Overview of noise processes and emissions

The Corby ERF will use conventional EfW technology, consisting of a single waste processing stream rated at 100.5 MW thermal input, and comprising the following major components:

- an enclosed waste tipping hall where heavy goods vehicles (HGVs) deliver waste to the ERF;
- an enclosed bunker hall, with a waste storage bunker and two overhead cranes for mixing waste and feeding it to the boiler;
- an enclosed boiler hall that houses a conventional moving grate combustion unit and waste heat recovery boiler;
- an enclosed FGT hall, containing the process for cleaning the flue gas;
- a single 75 metre stack;
- a turbine hall housing a single steam turbine generator;
- a single air-cooled condenser, comprising six large cooling fans and condensate pumps;
- enclosed ash loading building with bottom ash storage facilities;
- ancillary systems including auxiliary firing, water treatment, compressed air, process cooling, ventilation, fire detection and protection and electrical systems; and
- welfare, workshop, and office facilities.

The key sources of noise emissions from the process and during OTNOC have already been identified in Table 2 and Table 3 of section 3.2. The indicative location of the noise sources is marked in the site layout shown in Figure 2 below (Figure 3 for OTNOC).

Figure 2: Indicative location of Corby ERF key noise sources

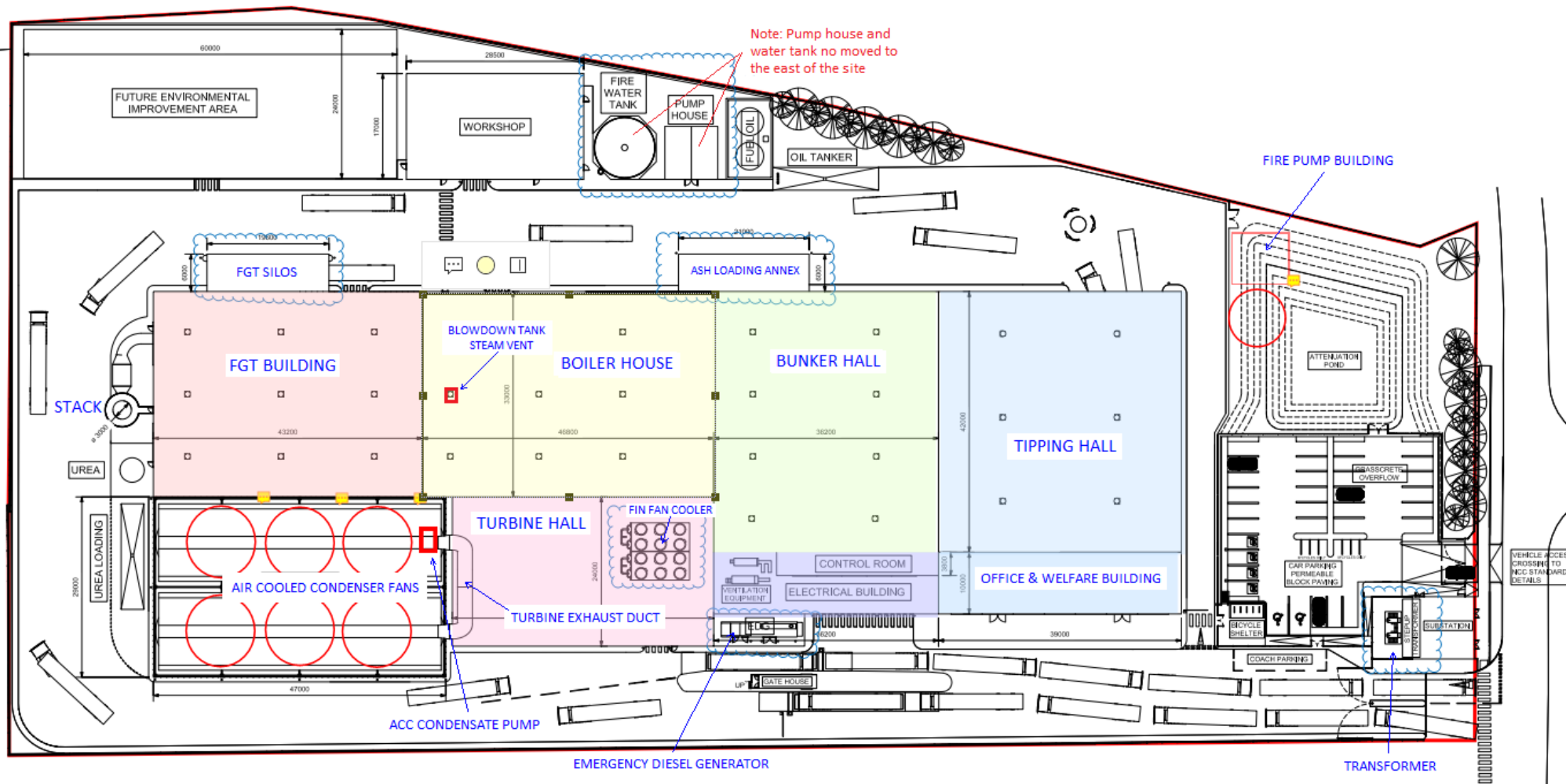
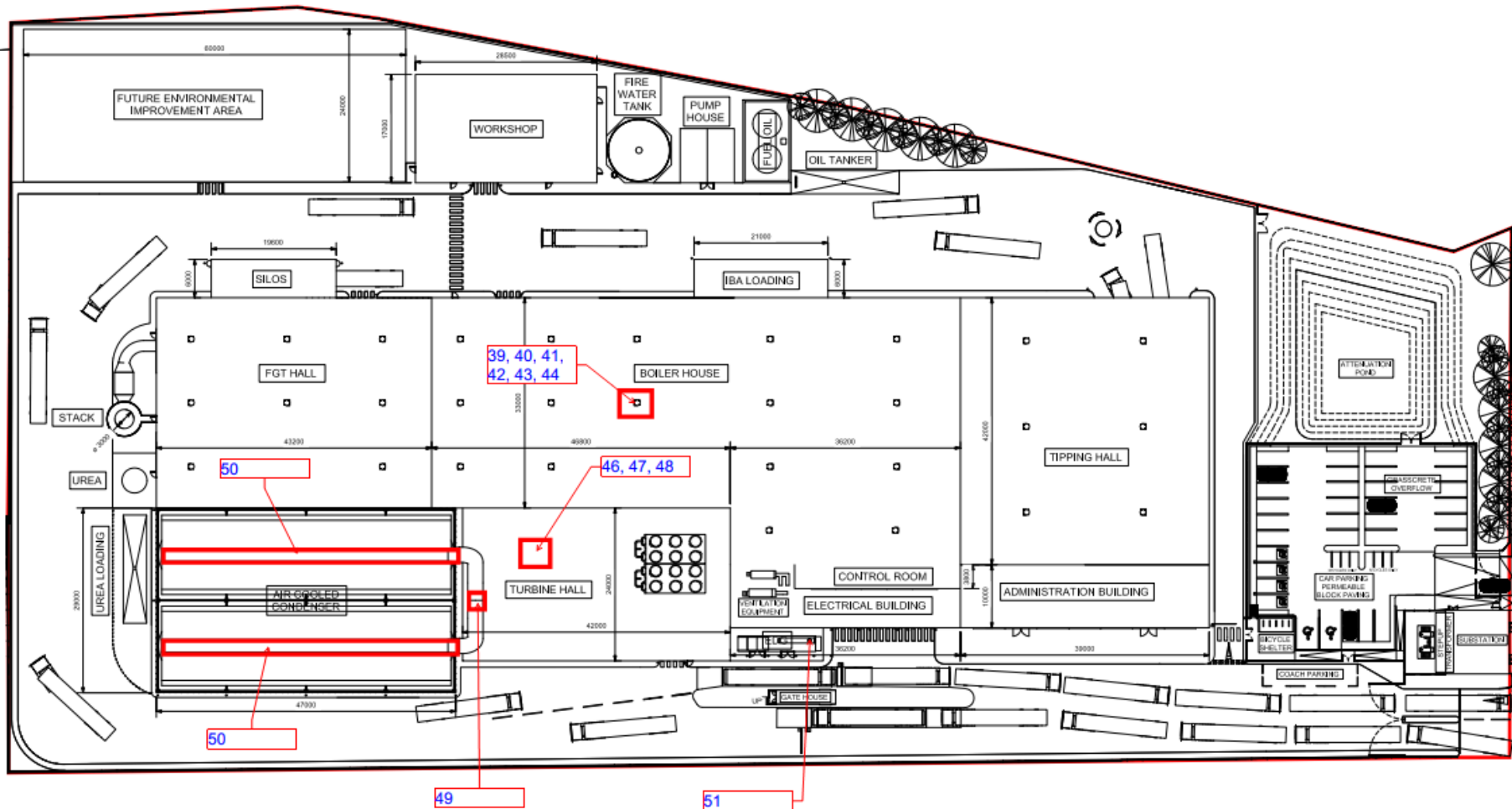


Figure 3: Indicative location of Corby ERF additional OTNOC noise sources



4 Control measures and process monitoring

Encyclis is an experienced operator of EfW plants. Its origins are with Covanta who have a long track record in operating similar plants in North America. Encyclis currently operates the Dublin ERF in Ireland and the Rookery South ERF in Bedfordshire and will shortly be operating the Newhurst ERF in Leicestershire and the Protos ERF in Cheshire.

In general, a significant part of EfW equipment is located within permanent buildings with a design life of 40 years and is not located outside.

The technical requirements for the ERF include specific noise limits on equipment. This is to prevent excessive noise from the ERF but also to prevent excessive noise within the ERF.

4.1 Appropriate measures / best available techniques (BAT)

Table 4 summarises the techniques used within the ERF for minimising noise during normal operating conditions. These include the best available techniques (BAT 37) provided by the Waste Incineration BREF.

Table 4: Management techniques for minimising noise under normal operating conditions

Area	Management Technique
Tipping hall	The tipping hall is where HGVs deliver waste to the ERF. There is no process equipment. Deliveries take place during daytime hours only. Doors are kept closed other than when HGVs enter or leave the tipping hall.
Bunker hall	The bunker hall contains two overhead cranes for moving the waste. The cranes will be inspected and maintained routinely which limits the formation of additional noise. The dropping of waste onto storage piles or into the feed hopper is done from a height which limits the excessive spread of the waste and also limits noise.
Boiler house	The boiler house contains the combustion unit, the boiler, and the ash handling system. The combustion unit and boiler are insulated for thermal protection which limits noise emissions. Within the boiler house: <ul style="list-style-type: none"> • Doors are kept closed during normal operation. • Vents in the roof are fitted with silencers. • Natural ventilation is used with louvres of suitable class. • Moving parts e.g. conveyors or fans are routinely maintained under a planned and preventative maintenance system which prevents increased noise.
Ash loading annex	The ash loading annex provides the space for overhead cranes to load HGVs with bottom ash. This takes place during daytime hours only. Doors are kept closed other than when HGVs enter or leave the ash loading annex. Mechanical ventilation of the ash loading annex uses axial fans located within the building discharging via louvres of suitable class. No mobile plant (e.g. wheeled shovel) is required.

Area	Management Technique
FGT hall	<p>The FGT hall contains the process for cleaning the flue gas. The flue gas ducts, reactor, bag filter and induced draft (ID) fan are insulated for thermal protection which limits noise emissions.</p> <p>The outlet of the ID fan is fitted with a baffle to reduce the noise levels. Condition monitoring of the ID fan and motor is undertaken.</p> <p>Within the FGT hall:</p> <ul style="list-style-type: none"> • Doors are kept closed under normal operation. • Natural ventilation is used with louvres of suitable class. • Moving parts e.g. conveyors or fans are routinely maintained under a planned and preventative maintenance system which prevents increased noise.
FGT silos	<p>Reagent handling equipment is located at the base of silos behind cladded screens.</p> <p>Moving parts e.g. fans are routinely maintained to prevent increased noise.</p> <p>Relief lines at the top of the silo are fitted with filters.</p> <p>Moving parts e.g. fans are routinely maintained under a planned and preventative maintenance system which prevents increased noise.</p>
Stack	<p>The flue gas duct leading to the stack is fitted with a baffle.</p>
Turbine hall	<p>The turbine hall contains the steam turbine generator and ancillary systems. The steam turbine is insulated for thermal protection which limits noise emissions.</p> <p>Within the turbine hall:</p> <ul style="list-style-type: none"> • Doors are kept closed under normal operation. • Vents in the roof are fitted with silencers. • Natural ventilation is used with louvres of suitable class. • Moving parts e.g. pumps are routinely maintained under a planned and preventative maintenance system which prevents increased noise.
Turbine exhaust duct	<p>The steam turbine exhaust duct is insulated for thermal protection which limits noise emissions.</p>
Air cooled condenser	<p>The air cooled condenser is washed periodically to remove dirt and debris and prevent fans operating at excessive speeds.</p> <p>Moving parts e.g. motor gearboxes are routinely maintained under a planned and preventative maintenance system which prevents increased noise.</p>
Turbine oil system cooler	<p>The turbine oil cooler mounted on the turbine hall roof is routinely inspected for cleanliness to prevent fans working at excessive speed.</p>
Transformer	<p>The transformer is routinely tested for oil quality to monitor its status and prevent degradation.</p>
Fire pump building	<p>The diesel engine driven pump is tested routinely during daytime hours only (see OTNOC in Table 5) and used only in significant fire events which cannot be tackled with fire extinguishers.</p> <p>The diesel engine exhaust is fitted with a baffle.</p> <p>A suitable building fabric specification is used for the fire pump building.</p>

Area	Management Technique
Emergency diesel generator	The emergency diesel generator is tested routinely during daytime hours only, and used only in significant events when the electricity distribution network is not available, and the steam turbine generator has failed to operate in 'island mode' (see OTNOC in Table 5).
Office and welfare	Windows and doors are kept closed. Condenser units for air conditioning units are located at ground level or behind parapets.
Vehicles	HGVs delivering waste or reagents and/or removing residues will only access the site during daytime hours. HGV's entering the site will also be fitted with and use white noise reversing alarms, or other non-tonal alarms, or be routed and managed to minimise reversing manoeuvres. HGVs accessing the site will be fitted with and use a standard, effective, silencer and maintained accordingly. No mobile plant is required for the routine management of residues or waste (once transferred to the storage bunker).

Table 5 summarises the techniques used within the ERF for minimising noise during OTNOC. These include the best available techniques (BAT 37) provided by the BREF.

Table 5: Management techniques for minimising noise under OTNOC

Area	Management technique
Reception hall	-
Bunker hall	-
Boiler house	Use of silencers to limit the noise produced by vents.
Ash loading annex	-
Flue gas treatment hall	-
Flue gas treatment silos	-
Stack	-
Turbine hall	Use of silencers to limit the noise produced by vents. Correct location of steam turbine bypass valve within the buildings to limit external noise emission.
Turbine exhaust duct	Use of silencers to limit the noise produced by vents.
Air cooled condenser	The steam headers are designed to a maximum steam velocity taking into consideration bypass operation, which contributes to limit noise emissions. If necessary, other noise mitigation measures (e.g. acoustic lagging) may be considered.
Turbine oil system cooler	-
Transformer	-
Fire pump building	The diesel engine driven pump is tested routinely during daytime hours only. The diesel engine exhaust is fitted with a baffle. A suitable building fabric specification is used for the fire pump building.

Area	Management technique
Emergency diesel generator	Use of baffle for the diesel engine exhaust. Use and maintenance of suitable building fabric for the diesel generator housing.
Office and welfare	-
Vehicles	-

4.2 Onsite monitoring procedures

A high-level description of onsite monitoring/maintenance procedures which will ensure noise impacts do not increase on site is provided in the table below.

Table 6: Onsite monitoring procedures

Description of procedure	Procedure	When will this be carried out?	Corrective action
Replacing old / faulty equipment	Procurement of new equipment	When equipment requires replacing	Replace equipment that have sound levels which are equivalent or lower sound levels compared to existing equipment.
Checking noise barriers	Visual inspection of barriers to ensure no gaps or holes	Monthly	Repair the barriers if holes or gaps are found.
Mechanical failures	Online monitoring of key process parameters	Continuously	Abnormal operating conditions which could affect noise conditions rectified in a timely manner.
Checking doors and gates are kept closed	Site walk-arounds and visual inspections	Daily	Any doors and gates left open which may compromise building attenuation are closed in a timely manner in accordance with O&M procedures.
Procurement of new equipment	Allowed noise levels specified according to plant noise design	Prior to accepting new equipment on-site	Noise limits to be specified when procuring new equipment in accordance with O&M procedures.

4.3 Monitoring off site sound levels

The NIA predicts that the noise emissions from the ERF will not exceed background levels at sensitive receptors. Therefore, there is limited benefit in conducting noise monitoring routinely; however, noise monitoring to assess whether the operation of the ERF can be detected at receptors will be implemented when there is cause (i.e. following receipt of a complaint – refer to section 5).

5 Complaints reporting

Encyclis will establish a complaints procedure for operational noise, odour and dust which also meets the requirements of condition 44 of the planning permission. This requires Encyclis to assess a complaint and provide a report on its findings together with mitigating any identified adverse effects within 5 days of the complaint. The complaints procedure will form part of the site EMS and will be developed prior to the commencement of operations at the site.

Contact details (telephone, email) will be displayed on the outside of the site complex (e.g. at the gatehouse or on fencing near the entrance) and will also be available on the ERF website to ensure that any complaints can be communicated directly.

Recording

The following details will be recorded for noise complaints:

- date and time of event;
- name of complainant;
- receptor location/s (address, internal/external);
- specific noise issue causing the problem (if known);
- observations and nature of the issue (continuous/intermittent, character of noise);
- effect of the issue on the receptor (nuisance, sleep disturbance, outside/inside, etc.);
- longevity of the issue (ongoing, short-term, etc.);
- weather conditions at time of issue; and
- name of staff member logging the complaint.

Investigation

Any complaints will be acted upon promptly, to understand the extent of the problem and implement any necessary mitigation to address the issue. Where appropriate, further investigation will be undertaken, and noise monitoring would be completed in response to the complaint that has been received. The complainant would be kept informed of timescales for any remedial measures/mitigation actions.

The investigation would be to understand the following:

- make sure the process is under control;
- check if noise containment measures have failed (for example, has a door been left open); and/or
- see if there is an adverse impact on the local community.

Auditable records of any investigations undertaken would be kept for a period of at least 3 years. The purpose of retaining these records would be to help the Operator analyse incidents to prevent them from happening again.

Notification of EA

Noise complaints would be reported to the EA site inspector in accordance any incident reporting conditions imposed within the EP.

Remedial action

Depending on the results of any investigation, remedial actions would be implemented. In some circumstances, site activities may need to cease whilst remedial action is taken (for example, if faulty equipment needs to be repaired or replaced). The effectiveness of any remedial actions

would be confirmed via additional noise monitoring which would be compared to the previous noise monitoring. Should the monitoring confirm that the remedial actions have been successful in reducing/mitigating noise levels, feedback would be provided to the complainant/EA, following which it will be considered that the complaint has been 'resolved'.

Feedback to complainants and EA

As described above, once an investigation has been completed and any remedial measures/mitigation actions implemented, the complainant and the EA will be informed.

If required, Encyclis would be happy to arrange a visit from the EA site inspector to confirm that any noise issues have been resolved to the satisfaction of the EA.

Feedback from complainant

Any additional feedback from the complainant would be logged against the original noise complaint record. If the complainant is not satisfied that the issue has been resolved, the complaint record will be 'kept open' and further investigation would be undertaken if appropriate.

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