APPLICATION FOR AN ENVIRONMENTAL PERMIT UNDER THE ENVIRONMENTAL PERMITTING (ENGLAND AND WALES) REGULATIONS 2016 (AS AMENDED)

EMISSIONS MANAGEMENT PLAN – UPDATE IN RESPONSE TO THE 2ND SCHEDULE 5

ECO-POWER ENVIRONMENTAL (HULL) LIMITED, GIBSON LANE, MELTON, HULL, HU14 3HH

23rd July 2021

PRESENTED TO

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REVISION HISTORY

Issue	Date	Status
1	March 2020	The 1st issue of the report By Eco-Power Ref: Eco 09.03.2020/EMP Final Issue March 2020
2	23rd July 2021	The 2nd Issue of the Update by Tetra Tech Ltd. Inclusive of Responses to the EA's Notice of request for more information (the 2nd Schedule 5 Request), the EA's letter was issued on the 22nd March 2021

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ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
BAT	the Best Available Techniques
BREF	The Best Available Techniques Reference Document
EA	The Environment Agency
EC	European Commission
EPUK	Environmental Protection UK
EMP	Emissions Management Plan
EMS	the Installation's Environmental Management System
EP	the Environmental Permit
EPTR	Environmental Permitting Technical Requirement
EU	European Union
FPP	in the Fire Prevention Plan
FRS	The Fire and Rescue Service
IAQM	The Institute of Air Quality Management
IPPC	Integrated Pollution Prevention and Control
NGR	The United Kingdom National Grid Reference
NMP	Noise Management Plan
PMP	Pest Management Plan
PVC	Polyvinyl Chloride
RDF	Refuse Derived Fuel
SRF	Solid Recovered Fuel
Tt	Tetra Tech Ltd
UK	The United Kingdom

1.0 INTRODUCTION

Eco-Power Environmental Limited commissioned Tetra Tech (formerly WYG) to update an emission management plant (EMP) in response to the EA's 2nd Schedule requests to support a planning application of a Waste Drying Plant, at Gibson Lane, Melton, Hull, HU14 3HH.

1.1 REQUIREMENT FOR AN EMISSIONS MANAGEMENT PLAN

An Emissions Management Plan ("EMP") was produced for Eco-Power Environmental (Hull) Limited ("Eco-Power") as part of the Environmental Permit ("EP") application at Gibson Lane, Melton, Hull, East Yorkshire, HU14 3HH. This EMP will form part of the Installation's Environmental Management System ("EMS").

Transwaste Recycling and Aggregates Limited ("Transwaste") currently operate a waste Facility at Gibson Lane, Melton under EP issued by the Environment Agency ("EA") (EPR/BP3792LD, issued 17/01/2017). Eco-Power wish to obtain a section of the permitted land with the intention of operating a waste recovery Installation within a building which will have a processing plant, drying floor area and pellet storage area. Transwaste will surrender the associated activity within their current Environmental Permit for this area if Eco-Power are granted the Environmental Permit.

The proposed activity is the production of fuel from waste via physical, mechanical and thermal treatment. Residual waste is delivered from waste management facilities and is shredded and run through a number of separation systems (trommel, magnetic, ballistic, infrared) before being placed on a drying floor. Waste heat from biomass boilers provides heat to reduce the moisture content of the residual waste Solid Recovered Fuel ("SRF"). The dried SRF is then pelletised (heat is applied, and material is passed through an extruder), cooled and stored prior to transfer off site for use as fuel.

All unprocessed SRF will be stored within the site buildings ready for rapid processing.

Approximately 250,000 tonnes per annum of residual waste from waste management facilities will be accepted.

As detailed in Environment Agency ("EA") online guidance – 'Control and monitor emissions for your environmental permit' (updated in February 2020, accessed in March 2020), an EMP must be provided as part of the bespoke EP application as Eco-Power propose to keep and treat waste in a materials recycling facility and the site is located within 500m of a sensitive receptor.

This EMP has been written to meet the requirements of the following:

- EA online guidance – 'Control and monitor emissions for your environmental permit' (updated in February 2020, accessed in March 2020);

- EA Sector Guidance IPCC S5.06 'Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste' (Issue 4, 2004); and
- The Best Available Techniques Reference Document ("BREF") for Waste Treatment (October 2018) which contains the Best Available Techniques ("BAT") Conclusions will be considered as it covers Installations associated with a number of waste treatments, including recovery and disposal of waste.

This EMP addresses the following issues:

- the materials and/or activity which could produce fugitive emissions;
- identification of potential sensitive receptors;
- process controls and procedures;
- monitoring regime;
- emergency scenarios;
- potential corrective actions;
- complaints procedure; and
- record keeping.

The EMP provides information on the potential fugitive emissions impacts from the Installation and the mitigation measures to be implemented. These measures are linked to EMS and will include operational and control measures for normal, as well as abnormal conditions.

The EMP also provides a management framework comprising of proactive and reactive measures to manage and control potential fugitive releases from the Installation. This proactive approach will facilitate the ongoing 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 EMP for the logging, evaluation and implementation of corrective actions in the event of any fugitive emission related complaints being received.

The Compliance Director is responsible for overseeing the effective implementation of the EMP and ensuring compliance is maintained.

1.2 REPORT REVISION HISTORY

1.2.1 The First Issue of the Report

The first issue of the report was produced by Eco-Power, Ref: Eco 09.03.2020/EMP, Final Issue, March 2020.

1.2.2 The Second Report Update – In Response to the 2nd Schedule 5

Following the issue of the fourth report update, Mr Matthew Woollin, Environmental Officer, Permitting and Support Centre, Quadrant 2, 99 Parkway Avenue, Parkway Business Park, Sheffield S9 4WF, issued a letter on the 22nd March 2021, requires to provide the information the 2nd schedule 5 request.

The 2nd Schedule 5 letter requests the addition information, inclusive of Emissions Management Plan (EMP), Noise Management Plan (NMP), Pest Management Plan (PMP), Environmental Permitting Technical Requirement (EPTR), Section 10: Compliance with BAT Conclusions.

A copy of the 2nd Schedule 5 letter is presented in Appendix A.

The Emission Management Plan (EMP) has been updated in accordance with the 2nd schedule 5 request**.** The EA's 2nd Schedule 5 requests are presented in *italic* and the Tetra Tech's responses are summarised in **blue** below.

Schedule

Emissions management Plan (EMP)

We require a revised emissions management plan which has been amended to address the requirements of the questions below. Please refer to our online emissions management plan guidance:

www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit (Updated October 2020).

The Emission Management Plan (EMP) has been updated in accordance with the 2nd schedule 5 request in a standalone document. A summary of Tetra Tech's responses to the 2nd schedule 5 request is presented below.

5. *Explain why dust produced by the emissions from the wood fuelled appliances has not been included as a source.*

Reason: In Section 4, Potential Sources no consideration is given to dust emissions from flue gases from the 41 wood fuelled appliances.

Tetra Tech (Tt) Response (5):

In Tetra Tech's air quality assessment report (the fourth issue, dated on the 25th March 2021), the impacts of the PM_{10} and $PM_{2.5}$ emissions from the wood fuelled appliances have been assessed for two boiler operations scenarios (35 boilers and 41 boilers).

Dust from the wood fuelled appliances has been modelled as PM_{10} and $PM_{2.5}$. A particulate concentration of 40 mg/m^3 at 10% O_2 at boiler stack that was reported in the Testing report results, Test Report 32-0119, 2011-10-31, has been used in the modelling.

6. *Review and update the list of receptors used in the EMP including justifying why a 500 metre radius has been used as cut-off distance for potential sensitive receptors given that the nature of the dust from use of wood fuelled appliances and treatment (including drying) of the proposed wastes is different to that for dust from quarries.*

Reason**:** No consideration given to the public footpath immediately adjacent to the north of the site**.** No consideration given to new development taking place to the North East of the site on Brickyard Lane.

Tetra Tech (Tt) Response (6):

A 500 metre radius is to comply with the requirement of the EA's Guidance of 'Control and monitor emissions for your environmental permit - How you must control and monitor emissions from your activities that may cause pollution', 17 May2021.

Section of "Emissions management plan for dust".

- *within 500m of a sensitive receptor such as a home, school, hospital or nursing home, food preparation facility or similar.*

In the particulate air dispersion modelling, the selected receptors are located more than 500 m away from the site.

The receptors of the public footpath immediately adjacent to the north of the site and the new development taking place to the North East of the site on Brickyard Lane have been included in the modelling assessment. (Section 5.2).

Particulate emissions from the drying floor stacks have been assessed based on the measured particulate matter concentrations within the stacks (Section 5.3.2), using dispersion modelling.

7. *Review the proposed monitoring locations given in figure 4 of the EMP*

Tetra Tech (Tt) Response (7):

Figure 4 of EMP (Figure 7-1 of this update) has been updated inclusive of the public footpath receptors.

8. *Review the dust emissions from the drying of waste and how these can be monitored and minimised*

Reason**:** The drying process involves blowing warm air through shredded waste and discharging via stacks without any dust monitoring or abatement.

Tetra Tech (Tt) Response (8):

As discussed in Response (1), A dust extraction system has been installed on the plant which processes the waste before it enters the dying floor. The system is a Heaton Green, ECONOTUBE T598/40x12L Extraction system, which is fitted with a 70000m^3/hr fan with over 20 extraction points, the unit extracts the dust out of each waste transfer point where dust is created. The dust collects in the filter unit bags outside which are emptied and moved off site in a trailer.

With regard to drying floor operations, all particulates are contained inside the drying floor due to the air having to pass through a fine mesh conveyor belt before it leaves the drying floor and therefor the air from the stacks is clean warm air containing water vapour.

Redwing Environmental Ltd has undertaken air monitoring survey of particulate matter emissions on the 18th May 2021.

The total particulate matter at reference conditions range 1.2 to 2.9 mg/m^3. The concentration is well below 50 mg/m^3, which is a common emission limit for total particulate matter (Redwing Report for the Periodic Monitoring of Emissions to Air, date of report 17th June 2021). Furthermore, the total particulate matter at reference conditions is also below the 10 mg/m^3, which is stated in the BAT Conclusions. Table 6.3 of BAT no25 of the BAT Conclusions stats:

> *"BAT-associated emission level (BAT-AEL) for channelled dust emissions to air from the mechanical treatment of waste Parameter Unit BAT-AEL (Average over the sampling period) Dust mg/Nm^3 2-5 (1) (1) When a fabric filter is not applicable, the upper end of the range is 10 mg/Nm^3."*

9. *Review and update the options available for dust control measures.*

Reason**:**

- *No consideration given to use of fast acting doors for entrances*
- *No consideration given to use of negative pressure system for dust extraction*
- *No consideration given to use of dust abatement within the building*
- *No consideration given to use of abatement for dust vented to atmosphere by the operation of wood fuelled appliances and the drying of waste*
- *No consideration given to use of dust monitoring (other than visual checks) or suppression within or outside the building other than use of spraying of surfacing in extreme conditions*

Tetra Tech (Tt) Response (9):

Fast acting roller doors have been fitted everywhere;

The extraction system covers the whole plant covering all dusty transfer points. There is no dust extraction inside the drying floor as there is no dust created as the material is on a slow-moving bed within the floor. There is extraction on the infeed and outfeed to the drying floor including the process before and after the drying floor.

Dust abatement within the building: as discussed in Responses (1) and (8). The dust abatement includes constant dust cleaning.

The dust monitoring at drying floor stacks has been undertaken by Redwing Environmental Ltd on the 18th May 2021. Dust impact from the stacks has been assessed using dispersion modelling.

The fast-acting roller doors have been fitted and the door will keep closed when not being used.

10. *Provide a clear monitoring plan to demonstrate how you will monitor all sources to ensure emissions remain under control including a review of the monitoring measures proposed for dust at the site. This must include:*
    - *Defined triggers to indicate when action must be taken to bring fugitive emissions back under control.*
    - *Identification of monitoring points and justification as to why these are appropriate taking into account high risk receptors.*
    - *Monitoring technique, frequency and time of monitoring accounting for high risk operating periods.*
    - *Monitoring check sheet that takes into account the above.*

Tetra Tech (Tt) Response (10):

The trigger level includes the dust being escaped off site during the daily visual dust monitoring.

Figure 4 of site monitoring location of EMP (Figure 7.1 of this report) has been updated including the footpath receptors.

Table 7-1 of this report presented the monitoring of all emission sources of EMP.

Shredding is taking place inside process building – visual dust monitoring at site boundary

palletisation is taking place inside shed 2 - – visual dust monitoring at site boundary

Monitoring drying waste:

- Dust monitoring drying floor stacks;
- Frequency: BAT 8 requires “once every six months”. However, BAT 8 said: (1) Monitoring frequencies may be reduced if the emission levels are proven to be sufficiently stable.
- Particulate monitoring of 3 stacks (out of 13 stacks) will be taken place once 12 months. Frequency could be reduced to biannually if the emission levels are stable.

Total suspended particulate (TSP) level monitoring within the process building:

- Equipment – Osiris Particulate monitor;
- Duration – 1-hour period;
- Frequency – once 12 months.

11. *Describe the contingency plans you will put in place to bring fugitive emissions back under control in the event day to day measures are failing and emissions exceed triggers defined in the monitoring plan. You must identify and describe a contingency measure for each individual source and define triggers for implementing and stopping the contingency measures once the emission is deemed to be back under control.*

    Reason: The EMP does not provide a detailed contingency plan for the individual sources on site. Section 7.2 refers to Table 14 as containing a detailed contingency plan, there is not a Table 14 in the EMP. However, Table 64 does provide some very general contingency measures but it would not be possible for an operative to understand what actions they must take for individual sources to bring emissions back under control or what would trigger the use of the very basic contingency measures.

Tetra Tech (Tt) Response (11):

Table 14 of the EMP (Table 7-1) of this report has been included and updated. Details of the monitoring frequency for drying floor stacks have been presented.

12. *Review the control measures listed in the site monitoring contingency plan and the emergency scenario contingency measures of the EMP*

Reason: The contingency plan does not contain any active control measures for dust within the building or potentially found within the emissions for the wood burning appliances or drying process, therefore if dust does prove to be an issue there are no control mitigation methods other than suspending operations.

Tetra Tech (Tt) Response (12):

An active control measures for dust within the building includes “a dust extraction system has been installed on the plant which processes the waste before it enters the dying floor”.

For drying process, all particulates are contained inside the drying floor due to the air having to pass through a fine mesh conveyor belt before it leaves the drying floor and therefor the air from the stacks is clean warm air containing water vapour.

13. *In addition to annually, confirm the timescales for when the EMP will be reviewed in the event that control measures fail.*

    Reason: In section 9 of the EMP you state that the EMP will be reviewed annually and if control measures fail or are inadequate, however no timescale or further detail of how this will be measured/implemented is given.

Tetra Tech (Tt) Response (13):

The EMP will be reviewed annually or following any changes in operations which have the potential to increase the level of exposure to surrounding sensitive receptors.

Any complaint is upheld whereby a review of the plan will be carried out and any improvements made.

14. *Confirm what actions will be taken in the event of a complaint/s in relation to corrective and preventive measures.*

    Reason: Section 8 of the EMP describes the complaints procedure. In section 8.2.3.1 you describe certain corrective and preventive measures, these are very basic measures and given the commitment to implementing measures within 1-3 days these may not be adequate to control dust generation/escape, robust control measures would reduce the risk of the site having to suspend operations as per section 8.2.7.1 of the EMP.

Tetra Tech (Tt) Response (14):

The sections 8.2 has been updated.

15. *Explain how the company will interact with the local community to better understand possible impacts from the site.*

    Reason: Reason: In section 8 of the EMP you have stated how you will respond to complaints which includes investigation and substantiation of the compliant. However, you have not explained how you will engage with the community following a complaint and the steps that will be taken to pro-actively engage the community to prevent complaints in the first instance.

Tetra Tech (Tt) Response (15):

Section 8.2.6 has been updated to include the actions:

Feedback to residents

If the site is causing an impact on local businesses steps will be taken to reassure them that issue is being dealt with, discussions of the action taken, and they will be informed of progress and outcome.

2.0 DISCRIPTION OF THE SITE AND PROCESS

2.1 SITE LOCAITON AND SETTING

Eco-Power is located on Gibson Lane, Melton, Hull, HU14 3HH and is centred on National Grid Reference ("NGR") 496740 425532. The exact location of the proposed installation is indicated on Site Location Plan (Drawing 01) which shows the installation within the Environmental Permit boundary as a green outline. As the installation is on Transwaste Waste Facility site ("Transwaste") their site boundary has also been outlined in red. This EMP relates only to the installation within the green boundary.

The installation is situated within Melton West Industrial Estate on Gibson Lane and the surrounding land uses are provided in ***Table 2-1***. At present, the closest human receptors are the neighbouring Transwaste which Eco-Power operate from within their site boundary andhave shared access.

Table 2-1 Summary of Surrounding Land uses within 1km of the installation boundary

Boundary	Description
North	Residential (Melton and Welton villages) primary school, sixth form college, shops, a church and several public houses. Railway line. Melton Park industrial Estate off Redcliff Road
East	Residential (North Ferriby Village), school, shops, church, railway station, football club. Industrial Estate off Brickyard Lane.
South	Humber Estuary, Industrial Estate off Gibson Lane, Welton water activities.
West	Residential (Brough town), school, sports club, village halls, railway station, public houses and shops.

The surrounding land uses, colour coded for each different land use, within 1km of the Environmental Permit boundary are displayed on the Sensitive Receptor Plan (Drawing 03) which is contained in Appendix B.

2.2 DISCRIPTION OF THE PROCESS

Eco-Power propose to operate under the listed activity detailed in ***Table 2-2*** under the Environmental Permitting (England and Wales) Regulations 2016 ("EP Regulations") as amended.

Table 2-2 Proposed Schedule 1 Activity

Activity listed in Schedule 1 of the EPRegulations	Description of Specified Activity
Section 5.4 A(1)(b)(ii)	Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving one or more of the following activities, and excluding activities covered by Council Directive 91/271/EEC – (ii)pre-treatment of waste for incineration or co- incineration.

Eco-Power wish to focus on the production of SRF and Refuse Derived Fuel ("RDF") at the Installation. Consequently, only 2 no. waste codes to be accepted at the Installation are proposed as detailed in .

Table 2-3 Proposed Wastes to be Accepted at the Installation

Waste Code	Description
19	**WASTES FROM WASTE MANAGEMENT FACILITIES, OFF SITE WASTE TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE**
19 12	**Waste from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 10	Combustible waste (refuse derived fuel)
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of waste other than those mentioned in 19 12 11

The proposed Waste Recovery System at the site will consist of:

- shredding;
- separating;
- drying; and
- pelletising.

The waste management operations to be carried out at the site as specified in Annex I and Annex II of the Waste Framework Directive 2008, and specified in the existing Environmental Permit, are detailed below:

- R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where the waste is produced);
- R3: Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes);

- R4: Recycling/reclamation of metals and metal compounds;
- R5: Recycling/reclamation of other inorganic materials;
- D9: Physico-chemical treatment not specified elsewhere which results in final compounds or mixtures which are disposed of by an of the operations numbered D01 to D12;
- D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced);
- D14: Repackaging prior to submission to any of the operations numbers D1 to D13.

3.0 SITE LAYOUT

3.1 DESCRIPTION OF SITE LAYOUT

The Site Layout Plan (Drawing 02 Appendix B) illustrates the site infrastructure and layoutarrangements on site.

Additionally, ***Table 3-1*** describes the infrastructure arrangements and design features of thesite layout which have been chosen to minimise emissions from the proposed activities.

Table 3-1 Infrastructure Arrangements and Site Design for Minimising Emissions

Infrastructure/Design	Description
Site Infrastructure	Visual site condition checks are implemented as part of the Installation's EMS to ensure that infrastructure is maintained to a good condition.
Buildings	The building locations have been selected to minimise emissions from prevailing wind directions and to be a considerable distance from sensitive receptor locations, where possible.
Loading and Unloading/Tipping Areas	Waste will be delivered to designated internal storage areas either by walking floors or ejector trailers. Maximum tipping height from these trailers will be 2 metres. These dedicated tipping areas are all within the building which will prevent any fugitive emissions reaching any sensitive receptors.
Storage Areas, Containers and Bays	Unprocessed and processed waste bays are housed internally. Ash from the biomass boilers will be stored in a covered containment vessel.
Fixed Plant Location (trommels, conveyors, shredders, drying, pelletising.)	All processing, such as shredding and tromelling operations are located within the processing building to prevent escape of emissions.
Site Surfacing	The Installation is located within the Transwaste site which benefits from complete impermeable concrete surfacing.
Location of letter netting	Litter fence netting is present to the north and west of the Installation to capture any large pieces of litter/waste debris.
Location of dust suppression methods	A water bowser will be utilised to dampen roads during extreme dry and windy conditions to prevent fugitive dust emissions associated with transportation of processed and unprocessed waste.
Dust Monitoring Locations	Dust monitoring will be undertaken and recorded on the Daily Site Monitoring Check sheet. A blank example is provided in Appendix II of this EMP. Particular attention will be given to the locations at high risk of fugitive air emissions, such as tipping areas and the waste processing areas, however the risk of fugitive emissions will be low due to all activities taking place internally with the doors closed when not in use. More information regarding dust monitoring is provided in Section 7 of this EMP.

4.0 POTENTIAL SOURCES

4.1 OVERVIEW

The potential sources of dust and litter emissions from the site include:

- during transportation of accepted waste from delivery sources to Eco-Power;
- tipping of waste materials;
- storage of the waste materials prior to processing;
- the main operation and processing activities, including shredding, separating, drying and pelletising material;
- storage of processed materials; and
- loading and transport of processed materials i.e. finished product.

4.2 SITE PROCESS STAGES AND ASSOCIATED RISK LEVEL

Table 4-1 describes the different operational stages at the Installation, the potential sources of emissions during each stage and the associated Source Emission Potential risk level.

The source emission potential is categorised as the following;

- Small - inert material, high density therefore little risk of becoming airborne, little likelihood of causing nuisance emission;
- Medium - lightweight, medium density material with some likelihood to be windblown;
- Large - small particle or low-density material, highly likely to be windblown, high likelihood of causing nuisance emission.

Table 4-1 Proposed Activities, Waste Source Types and Associated Risk Level

Stage of Process	Potential Sources of Fugitive Emissions	Physical Nature of Wastes Accepted	Waste Movement Method	Waste Storage Type	Waste Activities	Source Emission Potential
Movement of waste to and from Installation	Fine waste particles Mud on Road	Solid	Front end loader transportation vehicle.	n/a	Transportation	Large
Tipping and movement of waste materials	Fine waste particles	Solid	Front end loader transportation vehicle. Use of walking floors or ejector trailer.	Internal	Tipping	Large
Storage of waste prior to processing	Fine waste particles	Solid	n/a	Enclosed storage areas	Storage of waste	Large
Main operations – processing activities	Fine waste particles	Solid	Use of conveyors to move waste from different processing areas.	Internal	Shredding Tromelling Separators Drying Pelletising	Large
Storage of processed waste i.e. finished product	Fine waste particles	Solid (pelletised)	Loading shovel	n/a	Loading	Medium

describes the proposed permitted waste types on site, their corresponding EWC codes and the associated risk level.

Table 4-2 Permitted Waste Type and Source Emission Potential

Waste Code	Description	Source Emission Potential - Risk Level
19	**WASTES FROM WASTE MANAGEMENT FACILITIES, OFF SITE WASTE TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE**	
19 12	**Waste from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**	
19 12 10	Combustible waste (refuse derived fuel)	Large
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of waste other than those mentioned in 19 12 11	Large

The proposed waste to be accepted at the Installation is of a fine loose nature and therefore, the risk level of producing fugitive dust emissions is considered to be large. Once processed, the waste is pelletised, therefore, the compaction of the waste into pellets lowers the Source Emission Potential to medium.

5.0 POTENTIAL SENSITIVE RECEPTORS

5.1 CONSIDERATION FOR IDENTIFYING SENSITIVE RECEPTORS

To determine the severity of dust nuisance which may arise from the Installation, the sensitivity of the receiving environment and potential receptors must be considered. The degree of sensitivity in a particular location is based on the characteristics of the land use, including the reason why people are at the particular location (e.g. for work, recreation or residence).

It is also influenced by the meteorological conditions at the site and surrounding area.

Additionally, the degree of sensitivity depends on the distance from the dust source as the closer the receptor is to the source, the higher the potential for nuisance will be at the location.

A review of the area identified that the Installation is located within 500m of 16 possible sensitive receptors which can be seen in ***Figure 5-1*** and described in detail in ***Table 5-1***.

Figure 5-1 Location of Possible Sensitive Receptors

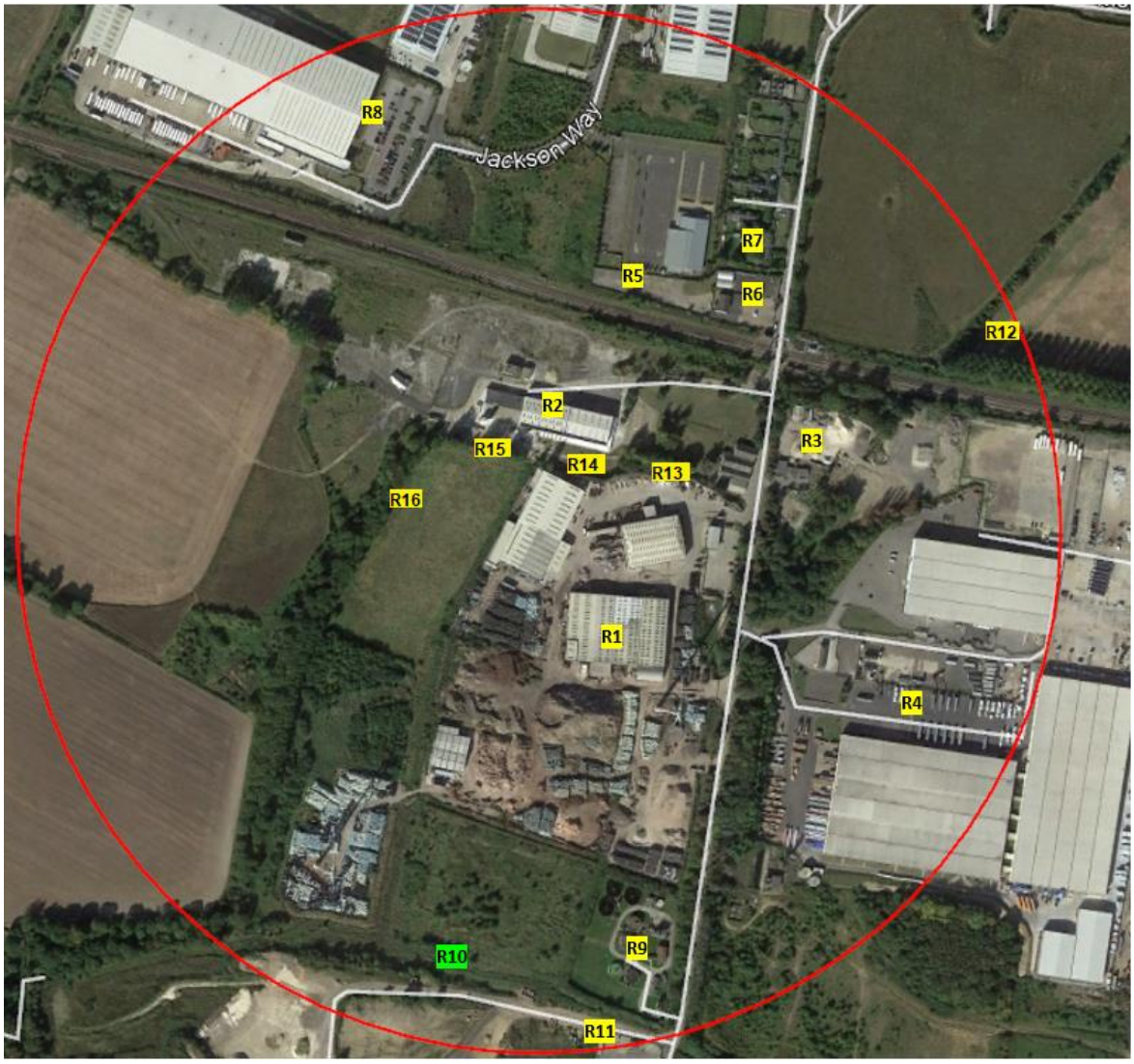


Table 5-1 Potential Sensitive Receptors and Dust Assessment within 500m of installation Boundary

ID	Receptor	Type of Receptor	NGR	Distance from the site Boundary (m)	Receptor Sensitivity
R1	Transwaste Gibson Lane, Melton	Human – Industrial/Commercial	496834 425491	0 E	Medium
R2	Omya UK Limited		496744 425645	10 N	Medium
R3	Melton Halt Motor Company Limited		496993 425633	166 NE	Medium
R4	Melton Enterprise Park – Industrial Estate off Brickyard Lane		497159 425388	174 E	Medium
R5	Unnamed Industrial unit and carpark adjacent to Heritage Landscape Centre		496872 425806	207 N	Medium
R6	Heritage Landscape Centre	Human - Recreational	496934 425766	210 N	Medium/Low
R7	Residential area off Gibson Lane S	Human - Residential	496957 425912	247 NNE	High
R8	Meltonwest Business Park – Industrial Estate off Jackson way	Human – Industrial/Commercial	496461 425956	277 NNW	Medium
R9	Sewage Works	Human – Industrial/Commercial	496837 425145	284 SE	Medium
R10	Old Drain	Ecological – Watercourse	496630 425135	378 S	Low
R11	Riverside Industrial Estate off Gibson Lane	Human – Industrial/Commercial	496710 424867	441 S	Medium
R12	New Development NE Brickyard Lane	Human - New Development	497316 425722	380 NE	Low
R13	Footpath	Footpath	496849 425595	40 NE	Low
R14	Footpath	Footpath	496767 425596	0 N	Low
R15	Footpath	Footpath	496695 425609	30 NW	Low
R16	Footpath	Footpath	496574 425533	100 W	Low

5.2 DUST ASSESSMENT GUIDANCE

The dust assessment in Section 5.4 of this EMP has been undertaken with reference to the Institute of Air Quality Management ("IAQM") qualitative frameworks for mineral dust[1] and construction dust[2]. The guidance uses the source-pathway-receptor concept and takes into account the size of source emissions (i.e. scale of the anticipated operations), the effectiveness of the pathway (i.e. dispersion of dust towards a receptor) through consideration of the frequency of dusty winds and the distance of the receptor from the dust source, and the sensitivity of the receptor.

The IAQM guidance on mineral dust advises that adverse dust impacts from sand and gravel sites are uncommon beyond 250m and beyond 400m from hard rock quarries, as measured from the nearest dust generating activities. Even though the operations on site aren't related to quarrying, the guidance and methodology on mineral dust has been applied to ensure a robust assessment in relation to Eco-Power's proposed activities. The IAQM guidance on construction activities advises an assessment distance of 350m along with assessment of the roads used to access a site.

Taking the above into consideration, in order to provide a conservative assessment, the Dust Impact Assessment has considered receptors up to 500m from the Installation boundary. Traffic ingress and egress points, as well as transport routes have also been considered.

The size of the source emissions is categorised as small, medium or large for each relevant operational activity. This takes into account the likelihood of the activity to generate dust emissions and the extent of the activity.

The estimation of the pathway effectiveness considers the frequency of dusty winds and the distance of the receptor from the dust source. The categories used in this assessment are taken from **Table A3-2** within the IAQM guidance and are reproduced for ease of reference provided in ***Table 5-2*****.**

[1] Institute of Air Quality Management (2016) (IAQM) Guidance on the Assessment of Mineral Dust Impacts for Planning, v1.1. Available at http://www.iaqm.co.uk/text/guidance/mineralsguidance_2016.pdf, Accessed September 2019

[2] Institute of Air Quality Management (2014) (IAQM) Guidance on the Assessment of Dust from Demolition and construction, v1.1. Available at http://iaqm.co.uk/text/guidance/construction-dust-2014.pdf Accessed September 2019

Table 5-2 Categories of Frequency of Potentially Dusty Winds

Frequency	Criteria
Infrequent	Frequency of winds (>5m/s) from the direction of the dust source on dry days are less than 5%.
Moderately infrequent	Frequency of winds (>5m/s) from the direction of the dust source on dry days are between 5% and 12%.
Frequent	Frequency of winds (>5m/s) from the direction of the dust source on dry days are between 12% and 20%.
Very frequent	Frequency of winds (>5m/s) from the direction of the dust source on dry days are >20%.

The effectiveness of the pathway (i.e. how effectively dust, and windblown dust, will be carried towards receptors) is based on the frequency of winds from the direction of the dust source and the distance of the receptor from the dust source as described in Table A3-4 of the IAQM guidance and is reproduced in Table 5-3 for ease of reference.

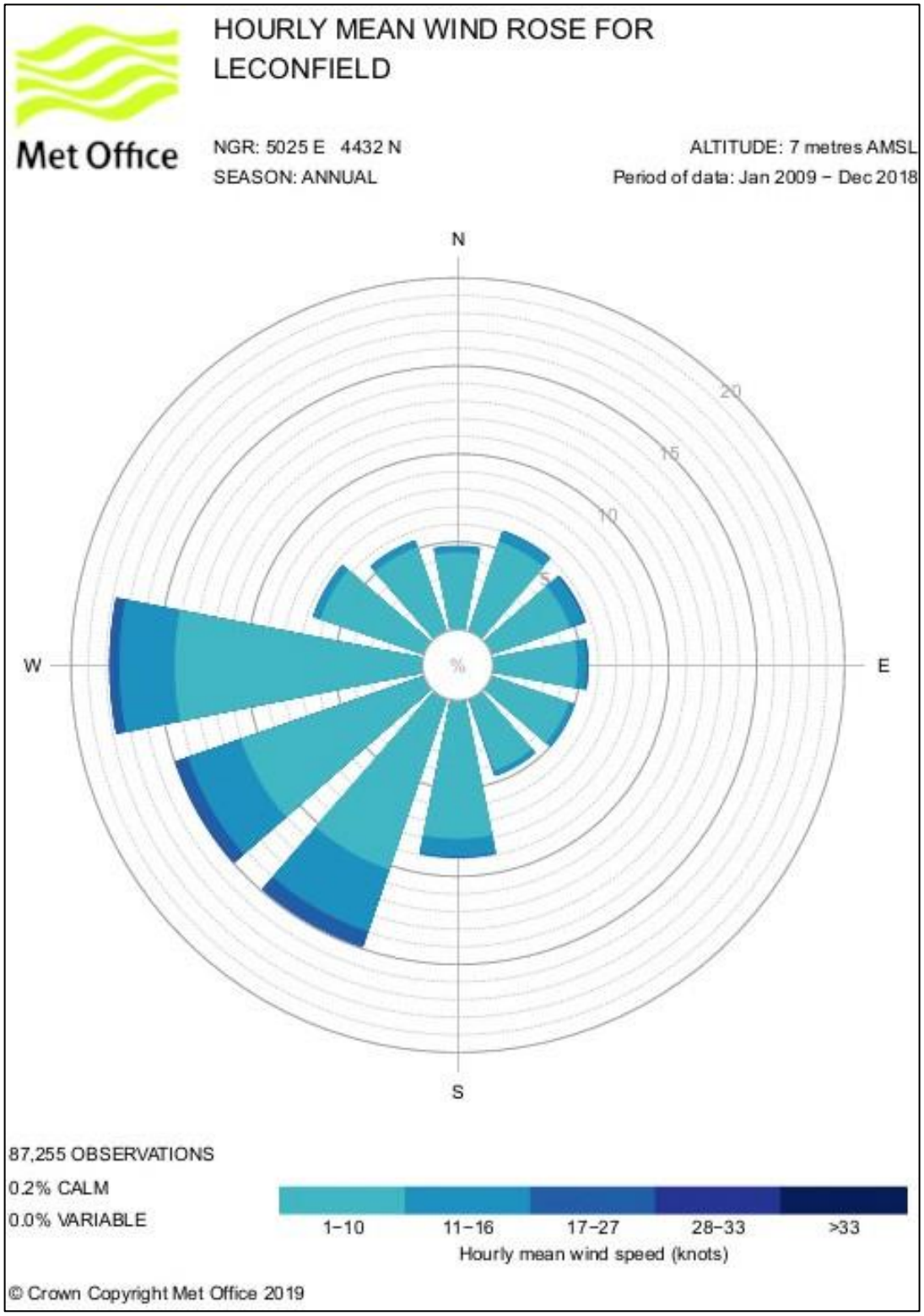
Table 5-3 Pathway Effectiveness

Receptor Distance (m)	Frequency of Potentially Dusty Winds			
	Infrequent	**Moderately Frequent**	**Frequent**	**Very Frequent**
Close <100	Ineffective	Moderately Effective	Highly Effective	Highly Effective
Intermediate 100-200	Ineffective	Moderately Effective	Moderately Effective	Highly Effective
Distant 200-400	Ineffective	Ineffective	Moderately Effective	Highly Effective

5.3 WIND DIRECTION

The wind rose provided by Leconfield Meteorological Station which is provided in ***Figure 5-2*** reveals the direction is predominately SW and W.

Figure 5-2 Wind Rose - Leconfield Meteorological Station (2009-2018)



5.4 DUST ASSESSMENT AND THE IMPACTS ON THE POSSIBEL SENSITIVE RECEPTORS

Using the information provided in Tables 7 and 8 on frequency of dusty winds and the pathway effectiveness, and using the wind rose in ***Figure 5-2*** as guidance, dust assessment based on the possible sensitive receptors within 500m of the site boundary has been undertaken.

The Dust Impact Risk has been estimated based on Table 10 which has been reproduced from ***Table 5-4*** of the IAQM guidance for ease of reference.

Table 5-4 Dust Impact Risk

		Residual Source Emissions		
		Small	**Medium**	**Large**
Pathway Effectiveness	Highly Effective	Low Risk	Medium Risk	High Risk
	Moderately Effective	Negligible Risk	Low Risk	Medium Risk
	Ineffective	Negligible Risk	Negligible Risk	Low Risk

The results of the dust assessment are provided in ***Table 5-5*** below.

Table 5-5 Possible Sensitive Receptors and Dust Assessment within 500m of Site Boundary

ID	Receptor	Source Emission Potential – Worst Case Scenario	Distance from Source (m)	Frequency Category	Pathway Effectiveness	Screening/ Topography/ Terrain	Dust Impact Risk
R1	Transwaste Gibson Lane, Melton	Large	0 E	Frequent	Highly Effective	No screening other than building infrastructure	High Risk
R2	Omya UK Limited	Large	10 N	Moderately Frequent	Moderately Effective	Boundary vegetation, such as trees and foliage	Medium Risk
R3	Melton Halt Motor Company Limited	Large	166 NE	Frequent	Moderately Effective	Flat open surfacing, limited vegetation	Medium Risk
R4	Melton Enterprise Park – Industrial Estate off Brickyard Lane	Large	174 E	Frequent	Moderately Effective	Vegetation and foliage, screening from Transwaste buildings	Medium Risk
R5	Unnamed Industrial unit and carpark adjacent to Heritage Landscape Centre	Large	207 N	Moderately Frequent	Moderately Effective	Limited vegetation	Medium Risk
R6	Heritage Landscape Centre	Large	210 NNE	Frequent	Moderately Effective	Vegetation and foliage, screening from building to the north of the Installation	Medium Risk
R7	Residential area off Gibson Lane S	Large	247 NNE	Frequent	Moderately Effective	Vegetation and foliage, screening from buildings to the north.	Medium Risk
R8	Meltonwest Business Park – Industrial Estate off Jackson way	Large	277 NNW	Moderately Frequent	Ineffective	Limited foliage	Low Risk
R9	Sewage Works	Large	284 SE	Moderately Frequent	Ineffective	Transwaste site including waste piles and buildings	Low Risk
R10	Old Drain	high	378 S	Moderately frequent	Ineffective	Transwaste site including waste piles and buildings. Vegetation and foliage.	Low Risk
R11	Riverside Industrial Estate off Gibson Lane	Large	441 S	Moderately Frequent	Ineffective	Transwaste site including waste piles and buildings. Vegetation and foliage.	Low Risk

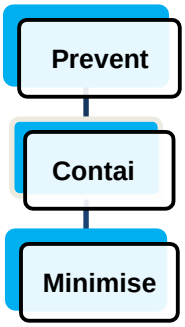
R12	New Development NE Brickyard Lane	Large	380 NE	Frequent	Ineffective	Flat open surfacing, limited vegetation	Low Risk
R13	Footpath	Large	40 NE	Frequent	Moderately Effective	No screening	Medium Risk
R14	Footpath	Large	0 N	Moderately frequent	Highly Effective	No screening	Medium Risk
R15	Footpath	Large	30 NW	Moderately frequent	Highly Effective	No screening	Medium Risk
R16	Footpath	Large	100 W	Moderately frequent	Moderately Effective	Flat open surfacing, limited vegetation	Medium Risk

6.0 OPERATIONAL AND PROCESS CONTROLS

6.1 EMISSION MANAGEMENT STRATEGY

Eco-Power's EMP strategy is to prevent any dust nuisance through good working practices and adhering to high housekeeping standards. A strategy based on the hierarchical structure shown in ***Figure 6-1*** will be used at the Installation.

Figure 6-1 EMP Strategy



6.2 EMISSIONS CONTROL MEASURES

It is considered that the techniques that will be in use at the proposed Installation will constitute BAT and will be appropriate and proportionate for the scale of the activities at the Installation and the risks that are posed to the environment by these activities.

The control measures proposed incorporate those detailed in the BREF for Waste Treatment (October 2018) which contains the BAT Conclusions for Installations associated with a number of waste treatments, including recovery and disposal of waste[3]

Additionally, the BAT Conclusions detailed in the EA Sector Guidance IPCC S5.06 'Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste' (Issue 4, 2004) have also been applied.

Table 6-1 details the environmental risk assessment undertaken for dust arising at the Installation. It can be observed that the control measures reduce the overall risk to low.

[3] BREF for Waste Treatment, available at: http://data.europa.eu/eli/dec_impl/2018/1147/oj, published October 2018, accessed March 2020

Table 6-1 EMP Risk Assessment and Control Measures

Potential Source	Receptor	Pathway	Control and Mitigation Measure	Dust Impact Risk – Worst Case Scenario	Consequence	Overall Risk
Transportation of Waste Materials	Sensitive human and ecological receptors identified – R1 to R11	Releases to air	Vehicle movement will be via the local road network utilising the Transwaste main site entrance to access Eco-Power's Installation. Transwaste have existing dust measures in place which Eco-Power will benefit from, such as having a net fencing around the perimeter of the site. All vehicles will be limited to 5mph on site. All vehicles must adhere to the designated route which consists of concrete hardstanding and has been designed to reduce movements on site. The designated route will be dampened if necessary using the on-site water bowser during dry weather conditions. Additional dampening will be undertaken by water hose during dry weather conditions. This will be undertaken by site operatives under the instruction of the Operations Manager. Good standards of practice will be adopted, such as avoiding abrupt changes in alignment. Regular cleaning and maintenance of external surfacing will be undertaken as part of the EMS. A road sweeper will be utilised where necessary.	High - medium	Dust Nuisance Mud and debris on road network	Low Control measures should prevent any dust nuisance from reaching identified receptors.

Potential Source	Receptor	Pathway	Control and Mitigation Measure	Dust Impact Risk – Worst Case Scenario	Consequence	Overall Risk
Tipping of Waste Material	Sensitive human and ecological receptors identified – R1 to R11	Releases to air	All tipping activities will be supervised by Eco-Power personnel. Waste materials will be delivered to an enclosed designated storage area. Drop heights will be controlled to 2 metres to prevent dust generation.	High-medium	Dust nuisance	Low Control measures should prevent any dust nuisance from reaching identified receptors.
Storage of Waste Prior to Processing			All waste will be stored in a dedicated covered areas as shown on the Site Layout Plan (Drawing 02) contained in Appendix I. This will prevent any escape of fugitive dust emissions during storage.			Low
Main Operations and Processing Activities:			All main operations and processing activities will be undertaken within the confines of the main Installation building. All machinery will be maintained in good working order as per the Planned Preventative Maintenance Regime ("PPMR") which is contained in Appendix III. Any malfunctions or breakdowns will be promptly dealt with and operations modified or suspended until normal working practises can be restored. See Section 7.3 for more detail.			Low

Potential Source	Receptor	Pathway	Control and Mitigation Measure	Probability of Exposure	Consequence	Overall Risk
Loading of Finished Product	Sensitive human and ecological receptors identified – R1 to R11	Releases to air	All loading of finished product will be supervised by Eco-Power personnel. The processed waste material will be sealed by the pelletising process, therefore, reducing the risk of fugitive dust emissions during loading. Even loading of vehicles will be undertaken to prevent any loss of material. In the unlikely event of loss of containment, Eco-Power personnel will collect and reload the material.	Low	Dust nuisance	Low Control measures should prevent any dust nuisance from reaching identified receptors.

7.0 SITE MONITORING PLAN

7.1 MONITORING OF ALL EMISSION SOURCES

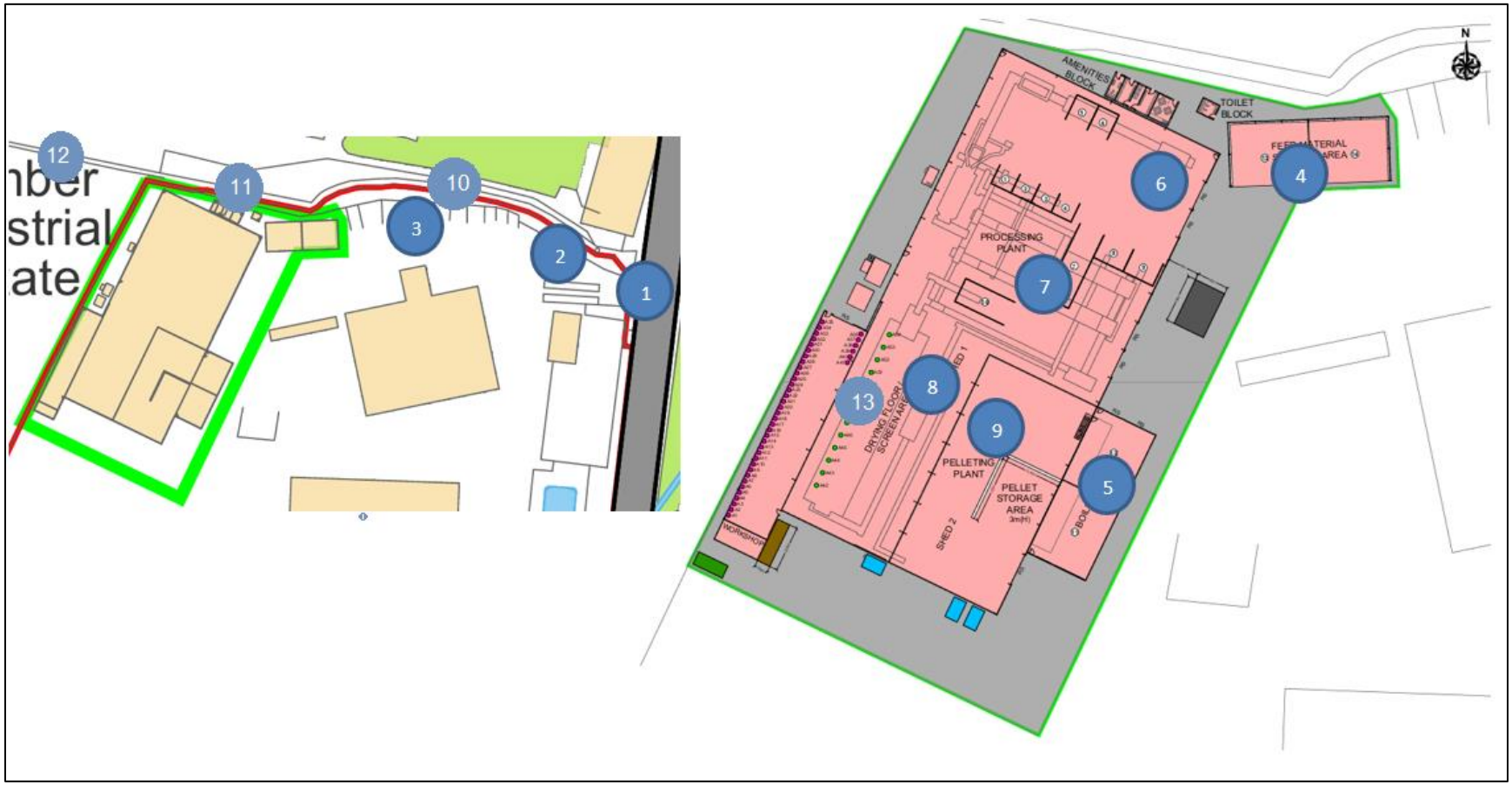
The following monitoring plan detailed in ***Table 7-1*** and Figure 7-1 demonstrates how each emission source on site will be monitored to ensure emissions remain under control.

Table 7-1 Monitoring of all Emission Sources

Stage of Process	Action Trigger	Monitoring Points	Monitoring Point Number Shown in Figure 7-1	Monitoring Technique	Frequency and Time of Monitoring
Transportation of waste via local road network and utilising Transwaste site entrance	Long periods of dry and warm meteorological conditions	Designated vehicle route, weighbridge and unloading/loading area.	Points 1, 2, 3	General weather observation. Visual dust, mud and debris monitoring. Inspecting vehicle wheels for mud or loose debris.	If dry weather conditions prolong, the designated route will be dampened several times a day as required and monitor checks will occur more than once a day, at the start of the working day and at every two-hour interval.
Internal tipping, movement and loading of waste materials	Windy weather and increased dust experienced internally	Designated tipping areas within building	Points 4, 5	General weather observation including wind speed and direction. Visual dust monitoring.	Increase monitoring checks in designated tipping areas to twice per day. Observing dust emissions with each load or movement.
Main operation/ processing activities	Windy weather	Building entrance and within the buildings.	Points 6, 7, 8, 9	General weather observation including wind speed and direction. Visual dust monitoring	Daily monitoring checks at the start of the working day which if required will be repeated every 2 hours.
Main operation/ processing activities	Dust outside of site boundary - Daily visual dust inspections	Footpath to the northern boundary	Points 10, 11, 12	Visual dust monitoring	Daily
Drying Floor System		Drying Floor Stacks	Point 13	Total particulate matter	Particulate monitoring of 3 stacks (out of 13 stacks) will be taken place once 12 months. Frequency could be

					reduced to biannually if the emission levels are stable.

Figure 7-1 Site Monitoring Locations



7.2 SITE MONITORING CONTINGENCY PLAN

A detailed contingency plan to control fugitive emissions for the individual sources on site can be found in ***Table 7-2*** explaining what actions are required by operatives should emissions exceed normal levels.

Table 7-2 Contingency Plan to Control Fugitive Emissions on Site

Stage of Process	Action Trigger	Contingency Measures	Conditions to Cease Action
Transportation of waste via local road network and utilising Transwaste site entrance	Extreme and/or prolonged dry period. Strong winds, in particular strong south westerly/westerly winds. Designated vehicle route producing visible dust emissions.	Use of dust suppression methods, such as water bowser and water hose in locations of high risk.	Weather conditions improve. Dust emissions appear reduced as noted on Daily Site Monitoring Check Sheet. Approval given by Compliance Director or Operations Manager.
Tipping, movement and loading of waste materials	Extreme wind, weather warnings. Fugitive emission lift off visible during tipping of waste, even at lower tipping height.	Lower drop heights from 2m to 1m. PVC strip curtains will be installed on building entrances.	
Main operation/ processing activities	Extreme wind, weather warnings.	PVC strip curtains will be installed at building entrances.	
Drying Floor System	Stack particulate matter monitoring	Drying floor dust cleaning and maintenance	Visible dust emitting from the stacks

7.3 EMERGENCY SCENARIO CONTIGENCY MEASURES

In the event of an accident/unexpected incident such as fire, flooding, breakdown and staff absences, the following emergency measures detailed in ***Table 7-3*** will be implemented on site to manage fugitive emissions.

Table 7-3 Emergency Scenario Contingency Measures

Emergency Scenario	Contingency Measures
Fire	Any fire at the Installation will be treated as an emergency. The Fire and Rescue Service ("FRS") and the EA will be informed. Eco-Power personnel will be instructed to implement the fire-fighting strategy detailed in the Fire Prevention Plan ("FPP") (Eco 09.03.2020/FPP). In the unlikely event that an ignited load arrives at the site, the vehicle will be stored temporarily on the access road at a sufficient distance from the electricity power lines to prevent these being damaged. The load will not be admitted to the waste treatment/storage areas. The waste will be monitored and the FRS will extinguish the fire. The burnt waste will then be disposed of appropriately. There is a risk of accumulation of waste which cannot be processed as a result of a fire on site. If safe to do so, Eco-Power will arrange for the movement of waste off-site to another appropriately licenced Facility/Installation. Waste will not be accepted at the site until operations re-commence. Eco-Power will inform all waste suppliers to suspend waste deliveries until further notice and refuse acceptance of waste. Once the site or affected area is deemed safe by the FRS, repairs will be undertaken and/or replacement equipment will be sourced. Start-up of equipment will be undertaken gradually by trained personnel to ensure optimal performance of equipment prior to full commencement of waste activities.
Flooding	If the flooding event is as a result of heavy rainfall, the likelihood of airborne dust emissions will be reduced. Nevertheless, the following mitigation measures will be implemented if flooding occurs on site: Movement on site will be restricted and any further waste will not be accepted at the site.
Extreme wind	In exceptional circumstances when wind conditions are gale force, Senior Management will authorise the ceasing of all operations.
Equipment Breakdown and	Eco-Power's PPMR (See Appendix III) should prevent any unplanned breakdown of equipment or machinery. However, if this is to occur unexpectedly, the following contingency measures will be implemented.

Infrastructure Maintenance	Waste will not be accepted at the site until operations re-commence. Eco-Power will refuse acceptance of waste at the site from its suppliers. Where possible, spare parts will be held on site to undertake repairs as soon as possible. If spare parts need to be outsourced, this will be the responsibility of the Maintenance Manager and if required, specialist contractors will be contacted to undertake any complex repair work. Start-up of equipment will be undertaken gradually by trained personnel to ensure optimal performance of equipment prior to full commencement of waste activities.
Staff Absences	Eco-Power has assigned responsible persons and deputies in the case of staff absence. At the start of each working day, the Operations Manager will instruct the deputy in the case of staff absence to ensure all measures outlined in this EMP are undertaken. Senior Managers are fully trained in the EMP and are available to attend site out of normal working hours (8am-6pm).
Water Shortage	In the event of a water shortage or difficulty accessing water for the bowser, water will be obtained from the Towns water supply. The water supplier will be contacted for immediate assistance.

8.0 COMMUNITY LIAISON AND RESPONSE TO COMPLAINTS

8.1 COMMUNITY LIAISON

Eco-Power is committed to achieving an open and transparent relationship with the local community. If required, site personnel will attend local community meetings in order to be informed of any concerns which community members may have and to outline the robust measures outlined in this EMP to address these concerns. This will help to prevent dust nuisance complaints in the first instance.

Contact details are provided on the company website[4] for all Eco-Power sites including Eco-Power Environmental (Hull) Limited, Gibson Lane Installation and an email address is provided for general enquiries. Eco-Power welcome correspondence using these methods of communication.

8.2 RESPONSE TO COMPLAINTS

8.2.1 Initial Response – Data Gathering

If a dust complaint is received at the Installation either from a member of the public, EA or Melton Metropolitan Borough Council, the complaint will be fully investigated within 8 working hours. Eco-Power will request as much information as possible from the complainant, such as:

- date and time dust problem first identified;
- location of complainant;
- detail of the dust problem; and
- frequency or intensity of problem.

This information will then help inform and structure the investigation which will be undertaken on site.

8.2.2 Dust Complaint Investigation

The investigation will include the following:

- undertaking a site inspection to establish whether any high levels of dust emissions can be identified;
- speaking with operators to establish any changes to production, waste types or waste piles; and
- any observations of dust emissions recorded on the Daily Monitoring Checksheet (see Appendix II) or from any member of staff or contractor who has attended site

[4] Eco-Power Environmental Limited Company Website 'Contact Us' webpage: http://ecope.co.uk/contact/, accessed September 2019.

8.2.3 Dust Complaint Corrective and Preventative Measures

Once the investigation has been completed and the complaint substantiated, Eco-Power will determine and implement suitable corrective and preventative measures. The type and level of corrective and preventative measures will be dependent on the root cause and scale of the dust emission occurrence.

Any unavoidable events such as plant/equipment malfunctions will be recorded in the site diary, this will ensure that if complaints are received retrospectively from either the council/EA or directly, any circumstances which led to that complaint as a result of elements outside of the operator's control would be able to be attributed to the cause of the complaints.

If the source cannot be ascertained with 100T confidence, the site manager will either suspend or reduce the likely dust/particulate generating activities. If the complaint is considered valid, an investigation to the complaint will take place immediately by site management to ensure the problem can be rectified as soon as possible. The operator would then contact the complainant to advise on the issue and how this has been rectified.

Examples of the corrective and preventative measures are:

- implement lower drop heights;
- cease operation in areas of site where dust emissions are problematic until preventative measures can be implemented;
- increase dust suppression frequencies;
- install PVC strip curtains for building entrances/openings;
- further staff training on dust monitoring and operating standards and procedures; and
- suspending operations which are not being conducted using best-practice controls;

8.2.4 Dust Complaint – Evaluation of corrective and Preventative Measures

Daily inspections will be in place to ascertain whether the corrective and preventative measures above are successful in controlling and reducing dust emissions which will in turn see a reduction in complaints.

8.2.5 Timescales

The timescales associated with the complaint procedures are as follows:

- investigate complaint – within 8 working hours; and
- corrective and preventative measures proposed and implemented within 1-3 working days.

8.2.6 Feedback to Complainants

Eco-Power recognise that offering credible reassurance and demonstrating that complaints are taken seriously can be extremely advantageous. Eco-Power will discuss with the EA and complainant(s) the corrective and preventative actions which have been implemented to address any complaints and investigation findings.

Feedback to residents

If the site is causing an impact on local businesses steps will be taken to reassure them that issue is being dealt with, discussions of the action taken, and they will be informed of progress and outcome.

8.2.7 Escalating complaints

If complaints are received daily from multiple complainants over the period of 5 days and Eco-Power have undertaken an investigation which determines the Installation is categorically the source of the dust emissions problem, Senior Managers will hold an emergency meeting to discuss and agree on the ceasing of operations until the problem can be rectified. The EA will be informed of this decision. However, the robust measures outlined in this EMP should prevent this from being necessary.

8.3 RECORDS

EMP records are kept in accordance with the procedures established as part of the EMS.

Information which must be recorded will include but not limited to:

- an overview of the complaint received;
- investigation findings and associated actions raised;
- sensitive receptors in particular the type of receptors, location relative to the suspected dust source and an assessment of the impact of dust on receptors;
- identification of any circumstances which compromise the ability to prevent dust nuisance;
- timescales associated with the complaint; and,
- follow up to ensure close out of any preventative and corrective measures.

Any external/internal non-conformances raised against the requirements of the Environmental Permit or other relevant legislation, are recorded and followed up by the Compliance Director or Operations Manager, as appropriate, to address the concern identified and to prevent occurrence or re-occurrence. The records are reviewed as part of Management Review meetings.

9.0 EMP REVIEW

The continuing effectiveness of the EMP will be reviewed annually or following any changes in operations which have the potential to increase the level of exposure to surrounding sensitive receptors, by the Compliance Director.

If a complaint is substantiated a full review of the EMP will be carried out and any required improvements will be made.

The reviews will take into account compliance records, complaints history, site records and any recent sensitive developments on neighbouring land. The plan will be updated, as necessary, including any changes to the control measures.

APPENDIX A THE 2ND EA SCHEDULE 5 LETTER

Notice of request for more information

The Environmental Permitting (England & Wales) Regulations 2016

Company Director

Eco-Power Environmental (Hull) Ltd

Bankwood Lane Industrial Estate

Bankwood Lane

Rossington Doncaster South Yorkshire DN11 0PS

Application number: EPR/MP3107PP/A001

The Environment Agency, in exercise of its powers under paragraph 4 of Part 1 of Schedule 5 of the above Regulations, requires you to provide the information detailed in the attached schedule. The information is required in order to determine your application for a permit duly made 21st October 2020.

Send the information to either the email or postal address below by 17/05/2021.If we do not receive this information by the date specified then we may treat your application as having been withdrawn or it may be refused. If this happens you may lose your application fee.

Email address: psc@environment-agency.gov.uk.

Postal address:

Permitting and Support Centre
Quadrant 2

99 Parkway Avenue
Parkway Business Park
Sheffield

S9 4WF

Name	Date
Matthew Woollin	22/03/2021

Authorised on behalf of the Environment Agency

Notes

These notes do not form part of this notice.

Please note that we charge £1,200 where we have to send a third or subsequent information notice in relation to the same issue. We consider this to be the first notice on the issues covered in this notice.

Schedule

1. Please submit further information in relation to the drying of the SRF. Please include the following as a minimum:
   - Full details of the drying technique used i.e. full details of dimensions and volume that can be treated at any one time;
   - Provide full detail of the drying temperatures, duration, moisture content control and desired output level;
   - What moisture level in waste triggers the requirement for it to be dried;
   - How much waste can be dried per day?

   Reason: It is not clear how the drying process works in practice and is managed to ensure minimum fire risk and optimum moisture content. Without output parameters how can energy efficiency of the drying facility/wood fuelled appliances be controlled and maximised.
2. Provide an up-to-date plan of the site to replace the site layout plan (and other appropriate site plans referenced in management plans).

   Reason: The design of the waste reception shed has changed since the permit application was submitted
3. Clarify the maximum period of time that waste will be stored in the non-conforming waste quarantine area before it is removed.

   Reason: the non-technical summary in section 4.2.7 states that waste will be stored in the quarantine area intended for non-conforming wastes for up to 5 days. If the waste is odorous or poses a risk due to pests then this may result in a risk of pollution.
4. Provide details for the type of facilities that will use the RDF/SRF produced by the waste treatment process and how these represent a recovery operation.

   Reason: Incinerating waste is a disposal activity. Incinerators can be re-classified as a recovery operation if they get R1 status. No details have been provided as to the type or status of the sites likely to burn the RDF/SRF produced by the treatment process. The application applies for a Schedule 5.4 A (1) (b) (ii) activity but does not explain how the RDF/SRF produced by pre-treatment of waste for incineration or co-incineration will be subsequently used for Recovery or a mix of recovery and disposal of non-hazardous waste. Where RDF/SRF is used in a process that is not a recovery operation then it may be more appropriate to permit the pre-treatment activity as a Schedule 5.4 A (1) (a) (iii) activity (Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day).

Emissions management Plan (EMP)

We require a revised emissions management plan which has been amended to address the requirements of the questions below. Please refer to our online emissions management plan guidance:

www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit (Updated October 2020).

5. Explain why dust produced by the emissions from the wood fuelled appliances has not been included as a source.

   Reason: In Section 4, Potential Sources no consideration is given to dust emissions from flue gases from the 41 wood fuelled appliances.
6. Review and update the list of receptors used in the EMP including justifying why a 500 metre radius has been used as cut-off distance for potential sensitive receptors given that the nature of the dust from use

of wood fuelled appliances and treatment (including drying) of the proposed wastes is different to that for dust from quarries.

Reason: No consideration given to the public footpath immediately adjacent to the north of the site. No consideration given to new development taking place to the North East of the site on Brickyard Lane.

7. Review the proposed monitoring locations given in figure 4 of the EMP

   Reason: The public footpath has not been considered as a monitoring location despite it being susceptible to heavy dust particles and fugitive emissions from the building fabric.

8. Review the dust emissions from the drying of waste and how these can be monitored and minimised

   Reason: The drying process involves blowing warm air through shredded waste and discharging via stacks without any dust monitoring or abatement.

9. Review and update the options available for dust control measures.

Reason:

- *No consideration given to use of fast acting doors for entrances*
- *No consideration given to use of negative pressure system for dust extraction*
- *No consideration given to use of dust abatement within the building*
- *No consideration given to use of abatement for dust vented to atmosphere by the operation of wood fuelled appliances and the drying of waste*
- *No consideration given to use of dust monitoring (other than visual checks) or suppression within or outside the building other than use of spraying of surfacing in extreme conditions*

10. Provide a clear monitoring plan to demonstrate how you will monitor all sources to ensure emissions remain under control including a review of the monitoring measures proposed for dust at the site. This must include:
    - Defined triggers to indicate when action must be taken to bring fugitive emissions back under control.
    - Identification of monitoring points and justification as to why these are appropriate taking into account high risk receptors.
    - Monitoring technique, frequency and time of monitoring accounting for high risk operating periods.
    - Monitoring check sheet that takes into account the above.

    Reason: Table 53 of the EMP identifies that visual inspection will be carried out which may need to be increased during high risk operations/during prolonged dry/windy conditions and a site monitoring check sheet is provided in Appendix II. The check sheet does not provide any specific detail about what should be monitored, where monitoring will take place and when, nor does it identify the triggers for taking any specific actions. Despite proposing to operate a potentially dusty process no consideration has been given to anything other than visual dust monitoring. You must take into the account the BAT conclusions for the mechanical treatment of wastes in BAT no 8, BAT no 14 and BAT no 25 in the BAT conclusions for waste treatment document (2010/75/EU) 2018. This must include shredding, drying and pelletisation of wastes as a minimum.

11. Describe the contingency plans you will put in place to bring fugitive emissions back under control in the event day to day measures are failing and emissions exceed triggers defined in the monitoring plan. You must identify and describe a contingency measure for each individual source and define triggers for

implementing and stopping the contingency measures once the emission is deemed to be back under control.

Reason: The EMP does not provide a detailed contingency plan for the individual sources on site. Section 7.2 refers to Table 14 as containing a detailed contingency plan, there is not a Table 14 in the EMP. However, Table 64 does provide some very general contingency measures but it would not be possible for an operative to understand what actions they must take for individual sources to bring emissions back under control or what would trigger the use of the very basic contingency measures.

12. Review the control measures listed in the site monitoring contingency plan and the emergency scenario contingency measures of the EMP

    Reason: The contingency plan does not contain any active control measures for dust within the building or potentially found within the emissions for the wood burning appliances or drying process, therefore if dust does prove to be an issue there are no control mitigation methods other than suspending operations.

13. In addition to annually, confirm the timescales for when the EMP will be reviewed in the event that control measures fail.

    Reason: In section 9 of the EMP you state that the EMP will be reviewed annually and if control measures fail or are inadequate, however no timescale or further detail of how this will be measured/implemented is given.

14. Confirm what actions will be taken in the event of a complaint/s in relation to corrective and preventive measures.

    Reason: Section 8 of the EMP describes the complaints procedure. In section 8.2.3.1 you describe certain corrective and preventive measures, these are very basic measures and given the commitment to implementing measures within 1-3 days these may not be adequate to control dust generation/escape, robust control measures would reduce the risk of the site having to suspend operations as per section 8.2.7.1 of the EMP.

15. Explain how the company will interact with the local community to better understand possible impacts from the site.

    Reason: Reason: In section 8 of the EMP you have stated how you will respond to complaints which includes investigation and substantiation of the compliant. However, you have not explained how you will engage with the community following a complaint and the steps that will be taken to pro-actively engage the community to prevent complaints in the first instance.

Noise Management Plan (NMP)

We require a revised noise management plan which has been amended to address the requirements of the questions below. Please refer to our online noise guidance:

https://www.gov.uk/government/publications/environmental-permitting-h3-part-2-noise- assessment-and-control

16. Explain who produced the document and their qualifications that are relevant for this document

    Reason: This is a specialist subject and the right assessments need to be completed to make sure this is an effective document.

17. For a noise management plan, data needs to be collected from (potential) noise sources.

Reason: To have an understanding of the effect of the installation on receptors, you need to be able to demonstrate you have effectively used BS4142 Methods for rating and assessing industrial and commercial sound. You must take into account Best Available Techniques (BAT) reference Document for Waste Treatment 2018 which states "detailed assessments of sound power levels for individual plant items or modelling that may be necessary for either new or existing installations taking into consideration the potential for noise problems."

18. Review and update the list of receptors used in the NMP including justifying why a 1KM radius has been used as cut-off distance for potential sensitive receptors

    Reason: No consideration has been given to the potential wildlife that may be affected. No consideration has been given to the new development at Brickyard Lane. No indication how the receptors may be affected at different times of the day. Business / residents may be affected in different ways, this has not been indicated. The NMP indicated that operations will commence at 06:00, this is classed as night time by World Health Organisation (WHO) and BS4142.

19. Explain how the building has been appropriately sited and designed as stated within 5.2.1 of the NMP.

    Reason: No design details have been provided for the building, and how this will minimise the impact of noise. You must also take into the account the BAT conclusions in BAT no 17 and BAT no 18 in the BAT conclusions for waste treatment document (2010/75/EU) 2018.

20. Explain what attenuation is being used to keep noise below 50dB and how this was measured. There does not seem to be any measurements to support this figure.

    Reason: The proposed activities have the potential to increase noise levels within the local area, with the potential to cause noise pollution to local receptors. Not all local receptors have been identified. No evidence of how noise will be kept below 50dB.

21. Table 4 details that tipping height will be from 2 metres, however within section 8.2.3.1 a corrective measure is to reduce the tipping height to 1 metre. Why have these heights been included?

    Reason: Reducing drop height is a standard approach to limiting impact noise. Justification as to the heights described within the NMP, and evidence that this will reduce the noise levels should be provided. Can 1 metre drop heights be the standard?

22. Within section 8 of the NMP, the dust complaint procedure and OMP are referenced. Please review document to reflect the NMP.

Reason: There is no need for a reference of dust complaint procedure or OMP within the NMP.

23. Confirm what actions will be taken in the event of a complaint/s in relation to corrective and preventive measures.

    Reason: Section 8 of the NMP describes the complaints procedure. In section 8.2.3.1 you describe certain corrective and preventive measures, these are very basic measures and given the commitment to implementing measures within 1-3 days these may not be adequate to control noise generation/escape, robust control measures would reduce the risk of the site having to suspend operations as per section 8.2.6.1 of the NMP.

24. Explain how the company will interact with the local community to better understand possible impacts from the site.

    Reason: In section 8 of the NMP you have stated how you will respond to complaints which includes investigation and substantiation of the compliant. However, you have not explained how you will engage

with the community following a complaint and the steps that will be taken to pro-actively engage the community to prevent complaints in the first instance.

25. Confirm operating hours of the plant / machinery.

    Reason: There is a contradiction in operating hours. In table 4 the operating times are from 06:00-18:00 (12 hours), and within Plant Operating Hours timetable, this suggests operating times will be 20 hours per day.

26. Provide details of how daily inspections will be used to monitor any increase levels in noise.

Reason: Within the noise monitoring section of the NMP, daily inspections will be undertaken to monitor any increase levels of noise, no mention of how this monitoring will be undertaken, or what monitoring equipment will be used.

27. Provide noise levels for machinery is listed within section 3.1.2.

Reason: Without having noise levels for the machinery, it is impossible to say whether this will give rise to pollution. There is also no mention of access to the building this machinery is located and whether doors are automatically closed, how long each day the doors are open, what the impact is likely to be when the doors are open or when closed.

28. In section 3.1.3 reverse beepers are mentioned. The use of broadband “squawk” for vehicles would be more appropriate.

Reason: This is a recognised method used for BAT.

29. Within section 3.1.3, the word ‘clatter’ is used. More specific detail is needed as to what may cause this noise.

Reason: This is a potential source for noise pollution, therefore more information is needed to determine if this is the case.

30. In Table 4, a figure of 50dB is used stating that noise levels will not exceed this. Evidence is needed to justify this statement.

Reason: This activity could give rise to noise pollution. Evidence is needed to show how this has been determined. Provide the data which should provide estimates of the different noise sources either from design criteria and manufacturers data or from measurements of similar equipment or a combination of both.

Pest Management Plan (PMP)

An updated version of the PMP is required to include revisions that address the questions below:

31. Provide details regarding the design of the quarantine area for non-conforming wastes as shown on the fire prevention and mitigation plan

Reason: Reference is made in 5.4.7 of the PMP to non-conforming wastes being diverted to an outside quarantine area despite section 5.2.1 stating that no wastes will be stored externally. Given the nature of the proposed wastes and the possible reasons for rejection how will risks from the wastes be minimised by the containment measures for the quarantine area?

32. Define the term “summer months”.

Reason: Section 5.8.1 of the PMP states that storage times for SRF and RDF will be a maximum of 1 week during summer months. Although the term “summer months” is used in Table 8 it is not clear if this applies throughout the PMP.

33. Provide an updated site plan as currently shown in “fire prevention and mitigation plan” that includes labelling for the waste storage bays.

Reason: The current labelling approach refers to list of waste codes rather than a written description of the waste. We need clarity on what the bays will be used to store i.e. fines from processing of feedstock, processed waste awaiting palletisation etc.

34. Provide detail on the storage of feed material and the various outputs from the processing of feed material, including:

    - How long the materials will be stored for;
    - What monitoring for pests will take place?
    - What management to prevent or control pests will take place?

Reason: the storage of waste pending treatment in the feed material store poses a risk from pests, especially in warmer weather when the waste may have been stored off site long enough for fly infestations to start before waste is accepted at the site and residual food stuffs pose a clear risk from attracting scavengers. Similarly, the fines from the processing of the above although stored in the main treatment building pose a risk from fly infestation and from attracting scavengers, given the waste will be stored in a building it is likely to be attractive to pests throughout the year. Section 7 of the PMP (Emergency Scenarios) details that wastes may be stored at the site for up to 3 months in the period November to March. Whereas Section 5.2.2 states that the maximum storage time will be 1 week. There are therefore conflicting timescales for waste storage within the PMP. Waste storage times need be kept to a minimum as a primary control measure for pests, this is especially important for unprocessed wastes and waste fines.

35. Clarify where waste brought to site will be stored prior to processing

Reason: Table 4 of section 3 of the PMP states that storage of waste prior to processing will take place in Boiler House 2, this is supported by drawing “fire prevention and mitigation plan” which shows wastes with List of Waste codes 19 12 10 and 19 12 12 as being in Boiler house 2. Whereas, Section 5.4.4 of the PMP states that all wastes (unprocessed) will be stored in a waste storage building (presumably the feed material store). It is not clear therefore which area will be used for the storage of unprocessed wastes.

36. Clarify where SRF and RDF produced from waste processed at the site will be stored.

Reason: Drawing “fire prevention and mitigation plan” shows wastes with List of Waste codes 19 12 10 and 19 12 12 as being in Boiler house 2. This suggest that Boiler House 2 may be used for storing unprocessed waste and or RDF/SRF it is therefore not clear where the pelletized waste or RDF from the permitted activity will be stored. The above drawing suggests there is a risk of interaction/contamination from a high-risk material (unprocessed waste) with lower risk material (SRF/RDF).

37. Explain what actions will be taken to understand and minimise the age of the waste brought to site and where high-risk waste is identified what measures will be taken to control these risks.

Reason: The primary method that can be used to minimise the risk of pests is to control as much as possible the age of the waste i.e. minimize as much as possible the time between the initial production of the waste and it’s processing into SRF/RDF. Given that the wastes proposed for this site are wastes arising from the processing of waste at other waste management facilities then there is a greater risk that some of the material could have already been exposed to pests and therefore pose an imminent risk of pests once deposited i.e. fly infestations. We therefore expect robust control measures that mitigate this risk as much as possible.

38. Explain how the company will interact with the local community to better understand possible impacts from the site.

Reason: In section 8.1 of the PMP you have stated how you will respond to complaints which includes investigation and substantiation of the compliant. However, you have not explained how you will engage with the community following a complaint and the steps that will be taken to pro-actively engage the community to prevent complaints in the first instance.

Environmental Permitting Technical Requirements (EPTR), Section 10; compliance with BAT conclusions

Reference is made separately in this schedule in relation to the applicability of BAT as a consideration in developing the EMP and NMP.

When referring to BAT in the following questions, the BAT documents of reference are:

Sector Guidance Note IPPC S5.06 Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste (S5.06);

Best Available Techniques (BAT) Reference Document for Waste Treatment Industrial Emissions Directive 2010/75/EU (Integrated Pollution Prevention and Control) (2018); and

BAT conclusions for waste treatment 2010/75/EU dated August 2018.

39. Explain how waste pre-acceptance and acceptance procedures will control the acceptance of waste so as to limit the odour rate emissions to those utilized in any odour model used to understand risk.

Reason: the conclusions used in the odour assessment report rely on a certain level of odour rate emission from the drying process. The risk of odour from incoming waste will be determined by their composition. The suggested list of wastes to be accepted at the site include 19 12 12 wastes. The written description proposed for 19 12 12 wastes mean that they could potentially include a range of odorous materials. Robust waste pre-acceptance and acceptance as referenced in BAT no 2 should include controls as to how waste inputs will be managed to match the predicted odour rate emissions used in modelling.

40. Demonstrate how the waste reception proposal meets the requirement of BAT no 4.

Reason: The proposed operation involves tipping waste in a storage shed and then moving this waste to another reception area prior to treatment. BAT no 4 requires that “the storage is located in such a way so as to eliminate or minimise the unnecessary handling of wastes within the plant (e.g. the same wastes are handled twice or more or the transport distances on site are unnecessarily long).”

41. Clearly define the maximum storage times for all waste streams accepted and generated at the site.

Reason: reference is made the FPP, EPTR, and OMP to storage times for wastes. BAT no 4 requires that “the maximum residence time of waste is clearly established.”

42. Explain how you will monitor use of water, energy, diesel fuel and biomass on an at least annual basis.

Reason: BAT no 11 requires for a minimum annual monitoring of water, energy and raw materials.

Energy Efficiency

43. Demonstrate that the installation can meet the Indicative BAT requirements in section 2.7 of SGN5.06 and BAT no 23 of the BAT conclusions for waste treatment (2010/75/EU) 2018. You must provide the following as a minimum in accordance with BAT:
    - A comprehensive breakdown of the energy consumption and generation by individual source and the associated environmental emissions – see section 2.7.1 of SGN5.06
    - The proposed measures for improvement of energy efficiency – see section 2.7.2 of SGN5.06

- Demonstrate the degree to which the further energy-efficiency measures identified in the implementation plan have been taken into consideration and justify where they have not – see section 2.7.3 of SGN5.06.

Reason: Section 9 of the EPTR document addresses the energy efficiency measures at the installation, however it does not provide the level of detail or documentation required to demonstrate that the installation will be operated in accordance with BAT. For example, reference is made to the likely need for 936000 litres of diesel fuel (the majority likely needed for electrical generation) but a figure of only 21.49 tonnes of CO^2 is used in table 4 (energy consumption).

44. Specifically demonstrate why 41 130KWth wood fuelled boilers are more efficient than one or two larger boilers for drying waste and why alternatives to provide both heat and power were not considered.

    You must compare the following:

    - The energy consumption and associated emissions
    - The energy efficiency
    - Which engine technology is the best option?

Reason: You propose to use 41 Angus Orland (Orligno?) Super 130kw biomass boilers, resulting. The total net rated thermal input for the plant equates to 5.33MW, which could be achieved using larger, more efficient plant. An attempt has been made to justify why a large number of smaller boilers are the most efficient in accordance with indicative BAT energy efficiency measures, this is not satisfactory given that other options such as use of heat stores linked to a larger boiler could be available and does not account for issues with start- up/cool down of a large number of smaller units. No consideration appears to have been made to alternatives to wood fuelled boilers such as natural gas that are more suited to fluctuating load demands. Furthermore, as there is a requirement for both electricity and heat consideration could have been given to the use of alternatives such combined heat and power (CHP) units to provide both as referenced as possible BAT in Section 2.7.3 of S5.06.

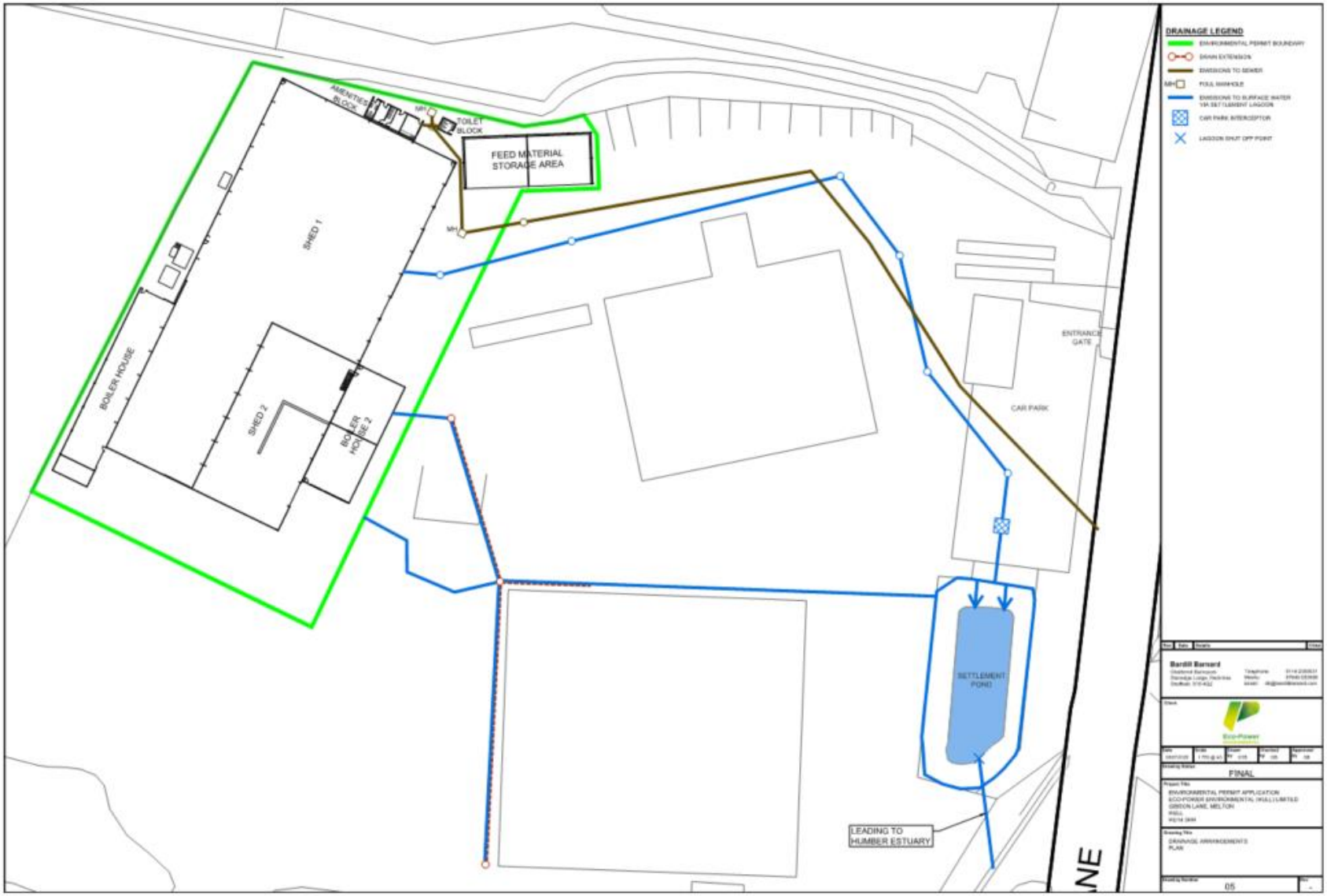
End of the 2nd Schedule 5.

APPENDIX B DRAWINGS


N
LEGEND
AMENITIES BLOCK
TOILET BLOCK
FEED MATERIAL STORAGE AREA
PROCESSING PLANT
DRYING FLOOR / SCREEN AREA
SHED 1
SHED 2
PELLETING PLANT
PELLET STORAGE AREA 3m(H)
BOILERHOUSE 2
WORKSHOP
0m 10m 20m 30m 40m 50m
Bardill Barnard
FINAL
02


Welton Common
Welton Ings
Welton Ings
Welton Water
Melton West Business Park
TransWaste
Melton Enterprise Park
Melton Ings
Melton Ings
Whinny Clump
Melton Common
Bull Field Bank
Sewage Works
Timber Yard
Tip (dis)
East Clough
West Clough
Mud
Red Cliff
Track
Path
Melton Crossing
Melton Bridge
Melton Grange
South Lawn
LEGEND
FINAL
Eco-Power


N
AMENITIES BLOCK
TOILET BLOCK
FEED MATERIAL STORAGE AREA
PROCESSING PLANT
SHED 1
DRYING FLOOR / SCREEN AREA
PELLETING PLANT
PELLET STORAGE AREA 3m(H)
BOILERHOUSE 2
SHED 2
WORKSHOP
0m 10m 20m 30m 40m 50m
LEGEND
CHEMICAL STORAGE
SPILL KIT
FIRE ALARM CALL POINT
FIRE EXTINGUISHER
FIRE SUPPRESSION CANNON
Bardill Barnard
FINAL
04


DRAINAGE LEGEND
AMENITIES BLOCK
TOILET BLOCK
FEED MATERIAL STORAGE AREA
SHED 1
SHED 2
BOILER HOUSE
BOILER HOUSE 2
ENTRANCE GATE
CAR PARK
SETTLEMENT POND
LEADING TO HUMBER ESTUARY
Bardill Barnard
Eco-Power
FINAL
DRAINAGE ARRANGEMENTS PLAN
05

APPENDIX C DAILY SITE MONITORING CHECK SHEET

Eco-Power ENVIRONMENTAL

Version: 1.0
Date: October 2019

DAILY SITE MONITORING CHECKSHEET

ASPECT	COMMENTS	ACTION TAKEN	RESPONSIBLE PERSON
Meteorological Conditions			
Details of Operations			
Visual Observations			
Dust Obs - Note Monitoring No. Application of Dust Suppression Methods			
Presence of pests, litter or mud			
Presence of noise and/or vibration			
Presence of odour - Monitoring No. & Level Scoring			
Any Other Comments:			

Name: _____ Signature: _____ Date_____

APPENDIX D PLANNED PREVENTATIVE MAINTENANCE REGIME

CLEANING REPORT

Eco-Power ENVIRONMENTAL

Week Commencing	24/08/2020

ITEM	TASK	FREQUENCY	Mon Days	Mon Nights	Tue Days	Tue Nights	Wed Days	Wed Nights	Thur Days	Thur Nights	Fri Days	Fri Nights	Sat Days	Sat Nights	Sun Days	Sun Nights
1	Clean behind Shredder 1 and C1	Each Shift														
8	Nihot Filter Drawers and Heavies	Each Shift														
10	Derag IM1,IM2 and Clean Motors	Each Shift														
11	Derag ECS feeds Clean ECS Motors	Each Shift														
17	Tomra Nozzles, Rollers and Motors	Each Shift														
20	Compressor and Dryer Filters	Each Shift														
22	Oil Cooler Filters	Each Shift														
23	C18, C20, C21 and C28 Motors	Each Shift														
24	Drying Floor Feed Motors	Each Shift														
25	Drying Floor Air Knife Motors	Each Shift														
26	Drying Floor Air Knife Filters	Each Shift														
27	C22 and C23 Motors	Each Shift														
28	Trommel 2 Motors	Each Shift														
29	C24, C25, C27 and C32 Motors	Each Shift														
30	Pelletiser Gantry Motors	Each Shift														
31	Pelletiser Platform Motors + Filters	Each Shift														
32	Pelletiser to Cooler Motors	Each Shift														
33	Cooler Fan + Agitator Motors	Each Shift														
34	Cooler Discharge Motors	Each Shift														
35	Cyclone Fines Bins	Each Shift														
2	Shredder 1 Platform	Daily														
3	Trommel 1, C1 and C2 Motors	Daily														
5	Nihot Fan Motors	Daily														
6	Nihot Platform and C3 Motors	Daily														
7	Nihot Discharge Motor	Daily														
9	C5, C6, C11, C14, C15 Motors	Daily														
12	C7, C9, C12, C13 and C30 Motors	Daily														
13	Ballistics Feed Conveyor Motors	Daily														
14	Ballistics Motors and Hydrolics	Daily														
15	Derag Ballistics Feeds	Daily														
16	Derag Ballistics Crankshafts	Daily														
19	C17 and C29 Motors	Daily														
21	Shredder 2 Motors	Daily														
4	Dewire Trommel	Weekly														
18	Tomra Scanner Lens	Weekly														

Comments:

PLANT OPERATING HOURS TIME TABLE

Eco-Power ENVIRONMENTAL

Weekly View		
Day	Hours	Running Total
Monday	20	20
Tuesday	20	40
Wednesday	20	60
Thursday	20	80
Friday	20	100
Saturday	20	120
Total Weekly Running Hours	**120 hours**	

Monthly View		
Month	Hours	Running Total
Oct-19	540	540
Nov-19	520	1,060
Dec-19	520	1,580
Jan-20	540	2,120
Feb-20	500	2,620
Mar-20	520	3,140
Apr-20	520	3,660
May-20	520	4,180
Jun-20	540	4,720
Jul-20	540	5,260
Aug-20	520	5,780
Sep-20	520	6,300
Total 12 Months Running Hours	**6,300 hours**	

Yearly View		
Year	Hours	Running Total
1	6,300	6,300
2	6,300	12,600
3	6,300	18,900
4	6,300	25,200
5	6,300	31,500
6	6,300	37,800
7	6,300	44,100
8	6,300	50,400
9	6,300	56,700
10	6,300	63,000
11	6,300	69,300
12	6,300	75,600
Total Yearly Running Hours	**75,600 hours**	

Rough Guide, not taken out bank holidays or breakdowns only week-end shutdowns

*Note: Machine Running time based on 20 hours per day Monday- Saturday. Not taking into account bank holidays or Machine break downs

Service/ Maintenance checklist For RENTEC Dinosaurus 2600S Pre-Shredder

Eco-Power ENVIRONMENTAL

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
General Cleaning of Machine	Each Shift	■																												
Visual Inspection of Machine	Each Shift	■																												
Check Hydraulic System Oil, Cutting Table, Oil Coolers & Testing	50 Hours		■																											
Maintenance Check of Machine	Weekly			■																										
Oil Bearings	500 Hours					■		■		■		■		■		■		■		■		■		■		■		■		
Pressure of Hydraulic Accumulators (9 Bar)	500 Hours					■		■		■		■		■		■		■		■		■		■		■		■		
Oil Analysis	500 Hours					■		■		■		■		■		■		■		■		■		■		■		■		
Gear Box Oil	1000 Hours							■				■				■				■				■				■		
Oil Coupling	3000 Hours															■												■		
Hateco Gear Coupling - Check Sleeves, Grease Level	4000 Hours																			■										

Go to service/ maintenance or user manual for advanced information
More than 1 year
8,000 Hours Hateco Gear Coupling - Screws, Nuts, Gaskets, Gearing & Sealing, Alignment

Service/ Maintenance checklist For Mc Donald Trommels 1 & 2

Eco-Power ENVIRONMENTAL

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
General Cleaning of Machine	Each Shift																													
Visual Inspection of Machine	Each Shift																													
Check Gearbox is not Overheating & Torque Arm is Securly Fastened	Daily																													
Grease all Bearings, Check Greasepots	40 Hours																													
Maintenance Check of Machine	Weekly																													
Check Trommel Mesh for Damage	Weekly																													
Check Trommel Brushes	Weekly																													
Check Trommel Brushes Rosta Units are Working Correctly	Weekly																													
Check Wheel Shaft Nuts & Bolts are Tight	Weekly																													
Check Bearings Nuts & Bolts are Tight	Weekly																													
Check Tracking on Barrell Using Grub Screw Adjusters	Weekly																													

Go to service/ maintenance or user manual for advanced information
More than 1 year

Service/ Maintenance checklist For NIHOT Single Drum Air Separator SDS-2000

Eco-Power ENVIRONMENTAL

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
Clean Filter Sleves	4 Times a Shift	■																												
General Cleaning of Machine	Each Shift	■																												
Visual Inspection of Machine	Each Shift	■																												
Remove Content from Stone Trap	Daily		■																											
Maintenance Check of Machine	Weekly			■																										
Relubrication Y Bearing Housing	200 Hours				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Remove Pollution from Inspection Doors	250 Hours				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Remove Pollution & Obstacles Around Explosion Relief Panel	250 Hours				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Check Oil Levels of Gear Boxes	250 Hours				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Check V Belt Tension	250 Hours				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Relubrication SNL Bearing Housing	2000 Hours											■								■								■		
Check Running Noises to Detect Possible Bearing Damage	3000 Hours															■												■		
Change Mineral Oil	6000 Hours																											■		

Go to service/ maintenance or user manual for advanced information
More than 1 year
10,000 Hours Change Geared Motors Lubricant
10,000 Hours Change Bearing Grease
10,000 Hours Change Oil Seal (Do Not Mount on Same Track)
10,000 Hours Check Rotational Clearance
10,000 Change Synthetic Oil

Service/ Maintenance checklist For Conveyortek Core 1200 Inline E TP Overband Magnets 1, 2 & 3

Eco-Power

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
General Cleaning of Machine	Each Shift																													
Visual Inspection of Machine	Each Shift																													
Check Drums are in Correct Position (25mm Between Stringer & Drum Face)	Each Shift																													
Ensure Belt is Tracked Centrally on Drums, No Side to Side Movement	Each Shift																													
Maintenance Check of Machine	Weekly																													

Go to service/ maintenance or user manual for advanced information
More than 1 year

Service/ Maintenance checklist For Conveyortek Core 1500 ECS-H Eddy Currents 1 & 2

Eco-Power ENVIRONMENTAL

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
General Cleaning of Machine	Each Shift	■																												
Visual Inspection of Machine	Each Shift	■																												
Maintenance Check of Machine	Weekly			■																										
Grease ECS Rotor External Bearing	250 Hours				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Grease Rear Drive Drum Take-Up Bearing	250 Hours				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Grease Magnetic Drum Separator	250 Hours				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Grease ECS Rotor Internal Bearing	750 Hours						■			■			■			■			■			■			■			■		

Go to service/ maintenance or user manual for advanced information
More than 1 year

Service/ Maintenance checklist For Mc Donald 8 Paddle Ballistic Separators SDS-2000 1 & 2

Eco-Power ENVIRONMENTAL

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
General Cleaning of Machine	Each Shift																													
Visual Inspection of Machine	Each Shift																													
Check Gear Box is Not Overheating & Inspect Coupling for Damage	Daily																													
Inspect Shafts	Daily																													
Maintenance Check of Machine	Weekly																													
Check Paddle Mesh Holding Down Bolts for Tightness	Weekly																													
Grease Ballistic Shaft Bearings & Ballistic Shaft & Check Bolts for Correct Tightness	200 Hours																													

Go to service/ maintenance or user manual for advanced information
More than 1 year

Service/ Maintenance checklist For TOMRA NIR1-VIS NIR Separators 1 & 2

Eco-Power ENVIRONMENTAL

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
General Cleaning of Machine	Each Shift																													
Visual Inspection of Machine	Each Shift																													
Check Status of Halogen Lamps, Replace Defective Lamps	Each Shift																													
Check Air Pressure	Each Shift																													
Clean Lenses	Each Shift																													
Clean Valve Block	Each Shift																													
Perform a Valve Test	40 Hours																													
Maintenance Check of Machine	Weekly																													
Clean Nozzles	160 Hours																													
Calbrate Autosort for Scanner Unit	500 Hours																													
Release Water from Pressure Unit Filter Bowl	500 Hours																													
Measure Belt Speed	500 Hours																													
Replace Pressure Units Filter	1000 Hours																													

Go to service/ maintenance or user manual for advanced information
More than 1 year
Note from TOMRA reps, we need to stock Lamps & Valves, will replace 30 valves a year, 1 lamp lasts 30k hrs

Service/ Maintenance checklist For LINDNER KOMET 2800 HP Fine-Shredder

Eco-Power ENVIRONMENTAL

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
Adjust Cutting Gap	8 Hours	■																												
General Cleaning of Machine	Each Shift	■																												
Visual Inspection of Machine	Each Shift	■																												
Check Knives/Kife Supports	Each Shift	■																												
Check Scraper	Each Shift	■																												
Clean Cooling Aggregate of Frequency Converters	Each Shift	■																												
Lubricate Rotor Bearing	12 Hours	■																												
Lubricate Pusher Bearing	12 Hours	■																												
Maintenance Check of Machine	Weekly			■																										
Check Rotor-Housing Seal/Cassette	Weekly			■																										
Check Screen Space	Weekly			■																										
Check Hydraulic Aggregate	Weekly			■																										
Lubricate Side Bearing for Foreign Parts Flap	200 Hours				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Lubricate Bearing Bolts	200 Hours				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Lubricate Rod-End Bearing Hydraulic Cylinder for Foreign Material Flap	200 Hours				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Lubricate Rod-End Bearing Hydraulic Cylinder of Screen Cassette	200 Hours				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Lubricate Pusher Unit	200 Hours				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Check Screw Fastening of the Screen Plates	500 Hours					■		■		■		■		■		■		■		■		■		■		■		■		
Replace Rotor Bearing Felt Ring Seal	500 Hours					■		■		■		■		■		■		■		■		■		■		■		■		
Check Coupling	500 Hours							■				■				■				■				■				■		
Check Bearing Play	1000 Hours							■				■				■				■								■		
Take Sample of Hydraulic Oil	2000 Hours											■								■										
Check Leveling Elements	3000 Hours															■												■		
Grease Drive Motor on Drive Side	3800 Hours																		■											

Go to service/ maintenance or user manual for advanced information
More than 1 year
6 Years Manufacturer to Change All Hydraulic Hoses
7,600 Hours Grease Drive Motor on Fan Side

Service/ Maintenance checklist For PERRY Belt Dryer

Eco-Power ENVIRONMENTAL

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
General Cleaning of Machine	Each Shift	■																												
Visual Inspection of Machine	Each Shift	■																												
Complete 40 Hours Check List in Manual	40 Hours		■																											
Maintenance Check of Machine	Weekly			■																										
Complete 160 Hours Check List in Manual	160 Hours			■																										
Inspection & Service, Grease Bearings, Check Gear Box Torque	2000 Hours											■								■										
Lubricate the Belt Tracking Unit Linear Side	2500 Hours													■										■						

Go to service/ maintenance or user manual for advanced information
More than 1 year

Service/ Maintenance checklist For ANDRITZ Paladin 3000-300/2R BM Pelletizers 1 - 5

Eco-Power ENVIRONMENTAL

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
General Cleaning of Machine	Each Shift																													
Visual Inspection of Machine	Each Shift																													
Check Oil Level in Hydraulic Unit	Daily																													
Maintenance Check of Machine	Weekly																													
Check & Refill Hydraulic Oil Pump Oil Container	Weekly																													
Check Knives for Wear	Weekly																													
Check Auto Grease Levels	Weekly																													
Grease Bearings of Pinion Shaft	1500 Hours																													
Grease Rear Bearing	1500 Hours																													
Grease Hinges, Rod End Bearings	1500 Hours																													
Lubrication of Pellet Chamber Hinges Rod End Bearings	1500 Hours																													
Lubrication of Main Drive Motor Platforms	1500 Hours																													
Lubrication of Hydraulic Cylinders Supporting Motor Platforms	1500 Hours																													
Lubrication of Threaded Spindle of Pellet Chamber Safety Switch Actuating Assembly	1500 Hours																													
Check & Replace if Necessary the Hydraulic Oil Pump Return Filter	3000 Hours																													
Change Oil & Filters	5000 Hours																													
Grease Sampling Trap Hinges	Every Year																													
Grease Star Knobs of Side Covers & Feed Guide Flap	Every Year																													
Change Oil on Hydraulic Oil Pump	Every Year																													

Go to service/ maintenance or user manual for advanced information
More than 1 year

Service/ Maintenance checklist For Geelen Counterflow Cooler VK42X38KL-P

Eco-Power ENVIRONMENTAL

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
General Cleaning of Machine	Each Shift																													
Visual Inspection of Machine	Each Shift																													
Check Oil Temperature	Each Shift																													
Check Filling Level	Each Shift																													
Maintenance Check of Machine	Weekly																													
Check Thermostat Probe	Weekly																													
Check Air System Filters	Weekly																													
Rakes and Distributors Automatic Height Adjustment	Weekly																													
Control Panel Filter	Weekly																													
Decks Discharge Valves	Weekly																													
Clean Temperature Probes	Weekly																													
Check Fire Thermostat	500 Hours																													
Check Hydraulic Cylinders at each Deck on Swivel Valve Discharger	500 Hours																													
Check Oil Level and Hydraulic Hoses, Pipes & Connections on Swivel Valve Discharger	500 Hours																													
Check Connections, Cyclones, Ducting & Fines on Air System	500 Hours																													
Check Rotary Valve Blades	3000 Hours																													
Check Oil Colour & Filter on Swivel Valve Dischrger	3000 Hours																													
Clean Fans	3000 Hours																													
Check Air System R-H Sensor	3000 Hours																													
Check Bearings & Seals on Cyclone & Fines Valve	3000 Hours																													
Check Blades & Housing on Cyclone & Fines Valve	3000 Hours																													
Check Ball-Joints at the Cylinders & Swivel Arms on each Deck on the Swival Valve Discharger	Every Year																													
Check Coupling	Every Year																													
Check Oil Level of Gear Box	Every Year																													
Check Cooling Air Every Year	Every Year																													
Check Oil of the Gear Box in Cyclone & Fines Valve	Every Year																													

Go to service/ maintenance or user manual for advanced information
More than 1 year
10,000 Hours Check Lubricant in Nord Reduction Gear Box
30,000 Hours Drain all Oil, Clean the Unit, Fill with New Oil on Swivel Valve Discharger
30,000 Hours Replace Rotary Valve Gear Box Oil

Service/ Maintenance checklist For RDF Processing Plant Including Conveyor Belts

Eco-Power ENVIRONMENTAL

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
Cleaning Check List	Each Shift																													
Visual Inspection of Machines	Each Shift																													
Check for Excessive Heat on All Motors	Daily																													
Make Sure Belts are Not Tracking	Daily																													
Scrapers Should be Adjusted at the Head Drum on Each Conveyor	Daily																													
Cleaning Checks	Weekly																													
Maintenance Check of Machines	Weekly																													
Check All Gear Box Levels	Weekly																													
All Bearings Greased	Weekly																													
Clean All Internal Chutes	Weekly																													
Replace Automatic Dispensers on Nord Drive Systems	3000 Hours																													

Go to service/ maintenance or user manual for advanced information
More than 1 year
2 Years Replace Shaft Seals if Worn in Nord Drive Systems
2 Years Clean Vent Plugs in Nord Drive Systems
2 Years All Gear Box Oils Changed
20,000 Hours Re-Lubrication of Bearings in the Nord Drive Systems Gear Units
10 Years General Overhaul of Nord Drive Systems

Service/ Maintenance checklist For Haith Conveyors

Eco-Power ENVIRONMENTAL

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
General Cleaning of Machine	Each Shift																													
Visual Inspection of Machine	Each Shift																													
Check for Physical Damage	Daily																													
Check Guards & Safety Devices	Daily																													
Check Condition of Plugs & Cables	Daily																													
Check Chains	Daily																													
Maintenance Check of Machine	Weekly																													
Check Gearboxes	200 Hours																													
Check Bearings	200 Hours																													
Grease Points	200 Hours																													
Renew Gearbox Oils	2000 Hours																													

Go to service/ maintenance or user manual for advanced information
More than 1 year

Service/ Maintenance checklist For Orlan Super 130 KW Boilers 1 - 42 & GRUNDFOS Pumps

Eco-Power ENVIRONMENTAL

Work To be Carried out	Frequency	Each Shift (10 Hours)	Daily (20 Hours)	Weekly (120 Hours)	250 hours	500 hours	750 hours	1000 hours	1250 hours	1500 hours	1750 hours	2000 hours	2250 hours	2500 hours	2750 hours	3000 hours	3250 hours	3500 hours	3750 hours	4000 hours	4250 hours	4500 hours	4750 hours	5000 hours	5250 hours	5500 hours	5750 hours	6000 hours	6250 hours	1 Year
Visual Inspection of all Pressures	Hourly																													
Remove/Empty IPC	Each Shift																													
General Cleaning of Machine	Each Shift																													
Visual Inspection of Machine	Each Shift																													
Clean Door Fans	Daily																													
Visually Check Pumps	Daily																													
Maintenance Check of Machine	Weekly																													
Grease Boiler Doors & Check Tightness	500 Hours																													
Internal Chambers & Chimney Flaps Cleared of Pitch	500 Hours																													
Front Case Removed & Fans Cleaned	500 Hours																													
All Handles Checked & Operational	500 Hours																													
Check for Leaks/Damage on Pipe Work Lines & Connections	500 Hours																													
Check the System Pump Set is Operational & Clear of Faults	500 Hours																													
Check Pressure Guage is in Working Order & Free of Leaks or Damage	500 Hours																													
Check All Air Vents are in Working Oreder & Free of Leaks or Damage	500 Hours																													
Check the System Heat Meter is Operational & in Working Order	500 Hours																													
Check External Heat Exchange is Working & Free From any Leaks or Damage	500 Hours																													
Check Fan Control/Inverter is Operational & in Working Order	500 Hours																													
Sweep Chimneys	3000 Hours																													

Go to service/ maintenance or user manual for advanced information
More than 1 year

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