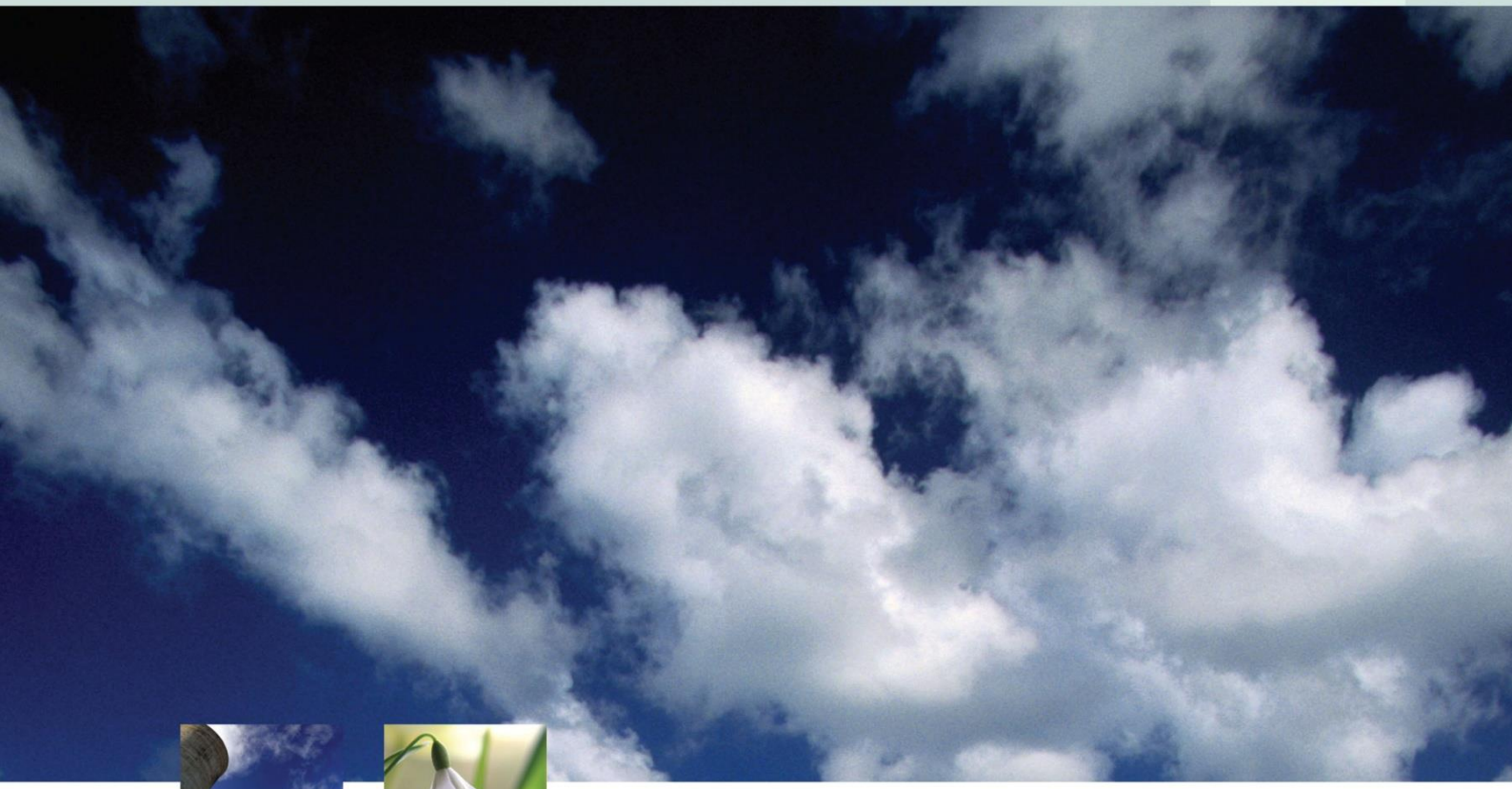

EPR PERMIT VARIATION APPLICATION

Mekatek Limited

Unit C, Maerdy Industrial Estate, Rhymney, NP22 5PY

Prepared for:
Mekatek Limited

Date:
June 2024

Project Issue Number:
SOL_23_P031_MEK:

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VERSION CONTROL RECORD			
Contract/Proposal Number:		SOL_23_P031_MEK:	
Authors Name:		Rhys Morgan	
Signature:			
Issue	**Description of Status**	**Date**	**Reviewer Initials**
1	First Issue to Client for Review	June 2024	SB

Contents

EXECUTIVE SUMMARY

This document has been prepared for Mekatek Limited and forms a Noise Management Plan in support of a Permit Variation Application for their waste recovery and recycling facility located at Unit C, Maerdy Industrial Estate, Rhymney, NP22 5PY.

Mekatek Limited is making this application to carry out a 'Substantial' Variation of their existing EPR permit under The Environmental Permitting (England and Wales) Regulations 2018 (as amended) in order to:

- Consolidate the exempted activities (T4 and T9 exemptions) within the plastic processing activity area and the existing permit into one permitted Installation;
- Increase the amount of waste processed by the facility from 30,999 tonnes per annum to 50,000 tonnes per annum (200 tonnes per day);
- Include new automated plant and equipment; and
- Include additional EWC codes.

This Noise Management Plan has been produced in accordance with EA guidance Document 'Horizontal Guidance IPPC H3 (Part 2 – Noise Assessment and Control)'.

There are three named sensitive receptors, with respect to noise, namely a house on Wellington Way, Maerdy House and St Clare's sheltered housing. No noise complaint has been received from these, or any other potential receptor.

Informed by the detailed Noise Impact Assessment (P2211-REP01-REV A-BDH) the significant sources of noise emissions deemed likely to exceed the pre-existing background level are noise from HGV deliveries and collections

1. INTRODUCTION

This document has been prepared for Mekatek Limited and forms a Noise Management Plan in support of a Permit Variation Application for their waste recovery and recycling facility located at Unit C, Maerdy Industrial Estate, Rhymney, NP22 5PY.

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- Increase the amount of waste processed by the facility from 30,999 tonnes per annum to 50,000 tonnes per annum (200 tonnes per day);
- Include new automated plant and equipment; and
- Include additional EWC codes.

The site currently accepts a maximum of 30,999 tonnes per annum and includes the receipt, storage, segregation and mechanical processing into various grades of granular metals and plastics for sale as recovered product. All treatment is for the purpose of recovery only. Treatment of materials includes either manual and / or mechanical methods.

This Noise Management Plan has been produced in accordance with EA guidance Document 'Horizontal Guidance IPPC H3 (Part 2 – Noise Assessment and Control)'.

The Noise Assessment Plan has been developed to ensure the ongoing management of noise so that noise issues are adequately addressed.

This Noise Management Plan will be implemented and maintained at the site as part of the company's Environmental Management System.

The Noise Management Plan and all associated Environmental Management System procedures will be reviewed at least every four years or as soon as practicable after an incident, with changes made accordingly to minimise the risk of occurrence / recurrence.

2. RECEPTORS

Please Refer to Table 2.1 below which provides information on the sites receptors. The figure provided in Annex A details the location of all noise sources in relation to the nearest residential receptors.

Table 2.1: Receptors

Receptor	Receptor Reference	Distance to Installation Boundary / Sources	Background Noise Level at Each Receptor		Specific Noise Level at each Receptor when Installation is Operating	
Type, extent, size			Day Time	Night Time	Day Time	Night Time
			07:00 – 23:00	23:00-07:00	07	
Housing on Wellington Way	HR1	25m	33	26	36	30
Maerdy House	HR2	<10m	33	26	31	25
St Clare's sheltered housing	HR3	55m	33	26	21	16

3. NOISE SOURCES

Table 3.1 below provides information relating to individual noise sources from the site and the sources contribution to the sites overall emissions.

Table 3.1: Noise Sources (information relating to individual sources and emissions)			
Identify Sources of Noise and / or Vibration	Source Reference	Describe the Nature of the Noise or Vibration	Contribution to Overall Emission
Proposed – Process Building			
Ulster Shredder	BH1	Utilised 100% of the time during both daytime and nighttime hours. Plant/equipment is enclosed within a building and additional operational measures are implemented to prevent noise emissions impacting sensitive receptors.	Medium
Conveyors	BH2		
Existing – Process Building			
Process Building	BH3	Utilised 100% of the time during daytime hours.	Medium
Process Building	BH4	Utilised 100% of the time during nighttime hours	
Stoker mill shredder	BH5	Utilised 100% of the time during both daytime and nighttime hours. Plant/equipment are enclosed within building and additional operational measures are implemented to prevent noise emissions impacting sensitive receptors.	
Stoker mill granulator	BH6		
Hamos	BH7		
Hamos vibration plate	BH8		
LCD dismantling station	BH9		
LEV extraction tower	BH10		
ELDAN shredder	BH11	Utilised 100% of the time during daytime hours. This plant/equipment is not operated during nighttime hours. Plant/equipment is enclosed within a building and additional operational measures are implemented to prevent noise emissions impacting sensitive receptors.	
ELDAN granulator	BH12		
ELDAN vibration table	BH13		
Existing – External Mobile Plant			
HGV	BH14	Recorded as 1 hour during daytime hours and 1/15min in nighttime hours. Deliveries and collections are consented between 06:00am and 19:30pm.	High
HGV traversing weighbridge	BH15	Recorded as 1 hour during daytime hours and 1/15min in nighttime hours. Deliveries and collections are consented between 06:00am and 19:30pm.	

Forklift Truck	BH16	Used when required for operational needs	

4. DEMONSTRATION OF BAT AND APPROPRIATE MEASURES

Table 4.1 below provides information relating to the abatement measures to ensure BAT on site.

Table 4.1: Demonstration of BAT		
Source Reference	Are abatement and actions taken to prevent or minimse emissions BAT?	Actions to be taken to meet BAT and timescales
	Demonstrate that arrangements are BAT for the Installation (see sector guidance and H3 for indicative BAT requirements)	*Identify proposals for improvement or issues that need to be addressed to meet BAT, with timescales for implementation*
BAT 17 - Waste Treatment BREF	BAT 17. In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to set up, implement and regularly review a noise and vibration management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements: I. a protocol containing appropriate actions and timelines. II. a protocol for conducting noise and vibration monitoring. III. a protocol for response to identified noise and vibration events, e.g. complaints. IV. a noise and vibration reduction program designed to identify the source(s), to measure/estimate noise and vibration exposure, to characterize the contributions of the sources and to implement prevention and/or reduction measures.	BAT 17 is met through the implementation of this management plan. Vibration has not been considered due to it not being considered a potential issue for the site.
BAT 18 – Waste Treatment BREF	BAT 18. In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to use one or a combination of the techniques given below. a. Appropriate location of equipment and buildings b. Operational Measures c. Low Noise Equipment d. Noise and vibration control equipment e. Noise Attenuation	BAT will be met by implementing measures A-C. Building location is restricted due to the building being pre-existing, however equipment is operated exclusively indoors, with the exception of HGV deliveries to and from the site, and forklift movement. Operational measures implemented on site include the inspection and maintenance of equipment, closing of doors and windows in the enclosed building, operation of equipment only by experienced staff, and avoidance of noisy activities at night where possible. There are some potentially noisy activities associated with the arrival of HGV vehicles from 6:30am but these are strictly limited and in line with he approved planning conditions at site. The site operates low-noise equipment where possible to further reduce noise impacts, however no noise complaints have ever been received by the site.
AP (NHIW) – 6.1.1	1. Enclosing activities within buildings can be an appropriate measure for preventing and minimising emissions of pollution, given	The site will meet this appropriate measure since all activities take place within an enclosed building. This includes the operation of noisy plant and equipment. Noisy

	that an appropriately designed building will reduce a range of types of pollutants, in particular, noise, dust and odour. A partially enclosed building may be an appropriate measure on its own, or together with other appropriate measures, depending on the site-specific circumstances.	activities that do not take place within an enclosed building include the movement of HGVs and forklift trucks.
AP (NHIW) – 6.1.3	3. You must also carry out non-treatment activities, such as storing and transferring waste (including loading and unloading) in enclosed buildings if these activities are likely to cause (or are causing) significant pollution at sensitive receptors which cannot be addressed by alternative measures. An enclosed building means a construction designed to provide sheltering cover and minimise emissions of noise, particulate matter, odour and litter. It must be enclosed on all sides. Its doorways must be as small as practicable and covered with fast-acting doors which default to the closed position. You must keep its windows closed unless you need to open them for ventilation. Dirty (process contaminated) air must pass through appropriate abatement before being emitted from the building.	The site will meet this appropriate measure since all activities take place within an enclosed building. All doors to the external environment will be closed at all times, except when in use for operations and windows will be kept closed at all times unless required for ventilation. FDoors and windows will kept closed at all times during nighttime operations to minimise the impact of noise during these sensitive hours.
AP (NHIW) – 6.1.6	6. Enclosed buildings must be ventilated to provide a safe working environment for employees. Your building's ventilation system must be properly designed and effective in order for the building to provide adequate containment and prevent fugitive emissions and unacceptable noise. The engineer designing the ventilation system must be appropriately qualified. To validate the size of supply points (louvers), and the volume of dirty air that needs to be extracted, the engineer must understand and consider: • the needs of the occupants working in the building • heat release • the volume of moist gas emissions that will be generated	The site will meet this appropriate measure as the building's ventilation system is designed to attenuate noise emissions as much as possible and provide adequate containment of the site's emissions whilst effectively providing a safe working environment for employees.
AP (NHIW) – 6.1.8	8. You must regularly assess the integrity of your building for damage that could result in fugitive emissions, including noise breakthrough. You must prevent and minimise damage by implementing a maintenance programme.	The site will meet this appropriate measure as the buildings are regularly inspected for signs of damage that could result in fugitive emissions, and repairs are made as fast as reasonably possible through an ongoing maintenance and repair program.

AP (NHIW) – 6.1.10	10. To reduce emissions of noise and vibration, the building must have an appropriate minimum surface density. You must install acoustic seals on doors and windows, following advice from an acoustic specialist.	The site will meet this appropriate measure as the site and its activities have been assessed by an acoustic specialist and have been deemed suitable in containing and prevent noise emissions from causing significant noise impacts.
AP (NHIW) – 6.2.4	4. You must assess and design vent and stack locations and heights to make sure dispersion capability is adequate and noise pollution is prevented. You may need to carry out dispersion modelling to establish whether the height of the vent or stack allows emissions to disperse appropriately, preventing any impacts on receptors	The site meets this appropriate measure as the site and its activities have been assessed by an acoustic specialist and have been deemed suitable in containing and prevent noise emissions from causing significant noise impacts. The location of vents had been considered previously in the design phase and given the latest variation does not consider any addition of new vents, this BAT is largely not applicable at this stage.
AP (NHIW) – 6.3.1	1. You must use appropriate measures to prevent and minimise fugitive emissions to air, including dust, mud and litter, odour and noise and vibration.	The site meets this appropriate measure, as BAT and appropriate measures for noise and vibration are actively being addressed in this management plan.
AP (NHIW) – 6.3.16	16. If your activities are likely to produce noise or vibration pollution at sensitive receptors, or such pollution has been substantiated, you must implement and regularly review a noise and vibration management plan. Follow our guidance H3 part 2 noise assessment and control. Your noise and vibration management plan must explain how you will prevent and minimise emissions of noise and vibration from your facility.	The site meets this appropriate measure through the implementation of this management plan.
AP (NHIW) – 6.3.17	17. For noise, your noise and vibration management plan must be informed by a noise impact assessment carried out following the methodology of BS 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound'	The site meets this appropriate measure as a detailed noise impact assessment has been carried out by Sol Acoustics and is annexed to this management plan. Please see Annex A – Noise Impact Assessment for details
AP (NHIW) – 6.3.18	18. For vibration, your noise and vibration management plan must be informed by a vibration impact assessment carried out following the methodology of BS 6472-1:2008 'Guide to evaluation of human exposure to vibration in buildings. Vibration sources other than blasting'.	The impact of vibration as been deemed not applicable for the site so a vibration management plan has not been adopted.

5. MITIGATION MEASURES

The main conclusions are of the noise assessment (P2211-REP01-REV A-BDH) are as follows:

- The total, aggregate environmental noise impact arising from the proposed operation of the plant in its entirety, in full compliance with the NMP and its associated plant noise specification as presented herein, does not result in an "adverse" noise impact at the worst affected noise sensitive receptors, all as assessed in accordance with British Standard BS 4142: 2014+A1:2019.
- Noise from HGV deliveries and collections to/from the Facility are likely to significantly exceed the pre-existing Background Sound Level, albeit for a very short period up to twice per day. However, deliveries and collections to/from the site between 06:00 hours and 19:30 hours Monday to Friday and between 08:00 hours and 13:00 hours on Saturdays are currently consented by Caerphilly County Borough Council (see Planning Condition 03 of Planning Consent number: 17/01/01/COU).
- Mekatek have never received any complaints from residents regarding noise from mobile plant or deliveries. There are no proposed amendments to the number or timing of deliveries proposed as part of the Permit Application and therefore the magnitude of the noise impact associated with deliveries, and the corresponding likelihood of complaint, is unchanged.

To mitigate against potential noise impacts arising from on-site operational, including HGV deliveries and onsite vehicle movement, the site will implement the following measures:

- Strict adherence to speed limits approaching site, and whilst on site. Slower speeds reduce the noise of engines as well as noise generated from bumps in the road or loose loads on board.
- Accepting deliveries, where possible, during daytime hours to minimise disruption of potential noise impacts during nighttime hours.
- Enclosing all operations within buildings, including the regular inspection and maintenance of buildings to prevent excessive noise escaping through breaches in the building's integrity, and the closing of external doors during noisy operations.
- Only operating noisy plant/equipment during essential operations to avoid the unnecessary generation of noise that could potentially impact nearby receptors.
- Regularly review and update the noise management plan to ensure adequacy for current operations.
- Operating a robust monitoring and complaints procedure to ensure noise levels are not exceeded, and in the unlikely event that they are, they are effectively managed and prevented in the future. Section 6 details monitoring and complaints procedures in greater detail.

6. MONITORING AND COMPLAINTS

A noise management program will be implemented on site which will consist of periodic (quarterly) noise monitoring to ensure that all emission levels are met and noise abatement measures are adequate to preventing and mitigate excessive noise.

All operational staff will be responsible for reporting any noise problems immediately to the Site Manager.

If any elevated noise levels are identified by the periodic noise monitoring, then the Site Manager will investigate the source of the noise and carry out a range of checks at the identified source of the elevated levels. Any noise monitoring will be completed in accordance with the relevant British Standards, including Method for rating industrial noise affecting mixed residential and industrial areas (BS4142). Monitoring locations will be agreed with the Environment Agency prior to undertaking monitoring.

Routine maintenance of all plant and equipment, including vehicles, will also identify equipment operating at elevated noise levels and maintenance will be undertaken to repair the defect immediately. The site will also regularly inspect buildings of signs of damage that may result in the release of fugitive noise emissions. Upon detection of signs of damage, the building will be repaired as soon as reasonably possible to prevent prolonged fugitive noise emissions.

A complaints investigation procedure will be in place to ensure that any noise complaints are investigated efficiently. In the event of a noise complaint on site, the following complaints procedure will be implemented, and all external communications logged and recorded in writing. The complaints procedure is to be conducted by the trained Site Manager.

When a complaint is received the following details will be logged:

- Date and time of complaint;
- Weather conditions (including wind speed/direction);
- Complainants name;
- Complainants contact details;
- Nature of complaint; and
- Additional details if required, location of complaint in proximity to the site, frequency of nuisance if necessary.

In the event of a noise complaint, operations on site will be assessed and the complaint investigated. The investigation will include:

- Identifying the noise source;
- Obtaining all operational details;
- Obtaining weather data;
- Witness logs from members of staff;
- Consideration to any off-site contributors.

The Site Manager will ensure that the complaint is investigated to identify the cause. To conclude the complaints procedure, direct communication with the complainant will be made to communicate the results of the investigation and actions taken as appropriate.

The management plan will be reviewed and updated if necessary, following every formal noise complaint to ensure its continued suitability in reducing and mitigating noise impacts on nearby receptors.

7. SUMMARY & CONCLUSION

This Noise Management Plan has been prepared in accordance with EA guidance Document 'Horizontal Guidance IPPC H3 (Part 2 – Noise Assessment and Control)'.

The document identifies all the primary sources of noise from the operations at the site and details the proposed noise prevention or minimization measures.

This Noise Management Plan will be implemented and maintained at the site as part of the company's Environmental Management System. This management plan will undergo regular reviews to ensure its continued suitability and will be reviewed following any formal noise complaints received.

This document is a "live" document and may be subject to change. In the event of any changes, all staff will be informed of any necessary updates to ensure operations are conducted in accordance to this management plan to reduce noise impacts.

Annex A – Noise Impact Assessment