



Recover Blaenavon Limited, Blaenavon Noise and Vibration Management Plan

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1. INTRODUCTION

This document presents the noise and vibration management plan (NVMP) for the Recover Blaenavon Limited (formerly Capital Valley Plastics & Recycling) site at Kays & Kears Industrial Estate, Blaenavon, Pontypool, NP4 9AZ.

This noise and vibration management plan details noise levels, best practices already taken, those committed to and those being investigated, monitoring, communication, and complaint procedures.

The Site Manager will be responsible for ensuring that this noise and vibration management plan is correctly implemented.

Due to the nature of the operations on site, and distance to the nearest receptors, ground-borne vibration is not considered a material risk. A subjective assessment has been made with the existing site in operation at the nearest receptor locations, with no noticeable vibration. In the unlikely event that vibration is detected in the future, monitoring and specialist advice will be sought, and residents will be consulted. Therefore, vibration is scoped out of this NVMP.

2. SITE AND SURROUNDING AREA

The site comprises an industrial building, external yard and car park at the Kays & Kears Industrial Estate in Blaenavon.

It should be noted that the building on the western part of the site (labelled as Unit 2 in the image below) was destroyed by a fire in 2021. The area is currently levelled and now comprises a concrete slab with only a small northern section of the building structure remaining standing.

The closest Noise-Sensitive Receptors (NSRs) to the site are residential dwelling on Garn Road, approximately 100m to the north west of the operational building (NSR1) and residential dwellings on West View Terrace, approximately 120m to the south east of the operational building (NSR2). It is noted that due to the topography of the area, NSR1 overlooks the industrial facilities, while NSR2 is at lower level with no direct line of sight to the site.

The prevailing ambient sound environment in the area, in the absence of operations at the site, was noted to be primarily influenced by road traffic noise arising from vehicles using the B4248 Garn Road, along with industrial noise from the wider commercial area.

The site, surrounding area and nearest NSRs are presented in Figure 1.

FIGURE 1: LOCATION OF SITE, SURROUNDING AREA AND NSRS



3. DEVELOPMENT OVERVIEW

3.1. Site Layout

The layout of the site is presented in Figure 2 below.

FIGURE 2: SITE PLAN – GENERAL LAYOUT AND FEATURES



3.2. Operations Overview

Recover Blaenavon Limited are a plastic reprocessing company that receives film plastic wastes and uses heat treatment to re-granulate the plastic and reach an end of waste saleable product, currently processing in the order of 52 tonnes per day.

The majority of the plant is fixed and mostly located within the 'Production Area' building. Forklifts are the only movable plant used on site to move materials from within the building to the external yard to the east. Three outdoor cooling units to the west of the building provide refrigeration to the plant.

The site currently operates 24 hours a day between Monday night through to Friday morning, and remains non-operational for the rest of the week.

3.3. Noise Generating Elements

The operations currently comprise the following noise-generating plant, ranked in terms of noise output in Table 1. No new plant is proposed as part of this Environmental Permit Application.

TABLE 1: SUMMARY OF NOISE-GENERATING ELEMENTS

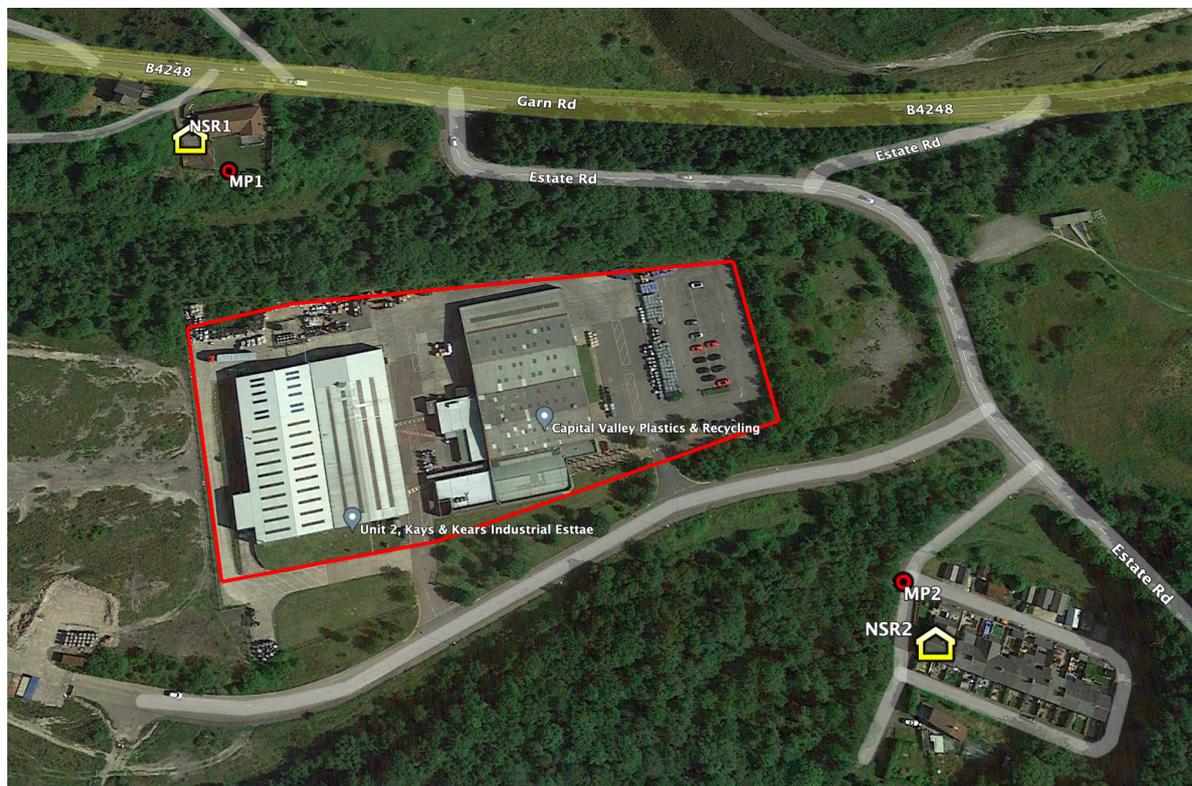
Description	Location	Operational Profile	Grid Coordinates	
			Easting	Northing
LEV/Extraction System	Internal within Production Area	Continuous	324475	209473
Chillers	External	On Demand - Regular	324451	209477
Diesel-Powered Forklift	Internal and External (yard area east of the building)	On Demand - Regular	324497	209478
Electric-Powered Forklift	Internal and External (yard area east of the building)	On Demand - Regular	324500	209452

No other treatment plant was deemed to be acoustically relevant for this assessment. No abnormal situations or incidents are anticipated to affect the noise generation of the site.

4. NOISE MONITORING

Operational noise measurements were undertaken at the closest NSRs on the evening of Thursday 20th October 2022. An aerial photograph indicating their locations shown in Figure 3.

FIGURE 3: MEASUREMENT POSITIONS



Noise from the site at NSR2 was not audible and therefore not measurable. The noise levels from the site at the NSR1, once subtracting the residual levels not due to the site, are presented in Table 2. Values have been rounded to the nearest whole number.

TABLE 2: MEASURED SOUND LEVELS AND SPECIFIC SOUND LEVEL CALCULATIONS

Measurement Position	Measurement Description	dB(A)
MP1	Specific Sound Level	52

5. NOISE MANAGEMENT

It is noted that Recover Blaenavon Limited is an established industrial facility in Blaenavon, which has been in operation for a number of years, apparently without noise complaints. The operator shall commit to ensure noise control equipment and techniques presented in this section are designed, operated and maintained appropriately

This NVMP aims to ensure that BAT (Best Available Techniques) are to be maintained on minimising noise from the operation, and enhanced where possible. The following control measures, considering operational constraints, are deemed appropriate to manage identified noise risks.

5.1. Existing BAT

The site currently operates two forklift vehicles. While one of them is a diesel-powered forklift, the other one is electrically-powered, generating substantially lower levels of noise. Where only one forklift is necessary, use of the electric unit should be prioritised.

All mechanical equipment is relatively new, regularly serviced and appropriately maintained.

Capital Valley Plastic & Recycling operates all equipment in a quiet and efficient manner as far as is operationally feasible, including the following:

- Only use required power and size of equipment;
- Do not drop materials, place wherever possible. Do not drag items across the ground;
- Plant not be left idling unnecessarily;
- All plant inspected and maintained regularly;
- Horns on site are banned unless of an immediate danger to get someone's attention.

5.2. Committed BAT

Recover Blaenavon Limited are also committed to the implementation of numerous additional mitigation measures, detailed below.

The facilities are currently operated with three roller shutter doors on the east facade open due to the ingress and egress of the forklifts. However, the doors on the 'Production Area' are more typically used by the forklift, with limited movements along the 'Storage Area'. Therefore, Capital Valley Plastic & Recycling will ensure that doors not regularly used are maintained in a closed position, as far as practicable. The operator has also confirmed that they have requested quotes for auto open/close system on the doors to the manufacturing area and would look at its financial feasibility in due course.

Doors at the rear of the building will be kept closed, where possible and not required for ventilation. Following the site visit on 20th October 2022, the operator has confirmed that the doors to the rear have in fact been closed and continue to be when the plant is operational.

Ensure that all potential holes and gaps in the building are sufficiently sealed.

Existing diesel forklift will be fitted with white noise reversing alarms rather than high pitched beepers.

Recover Blaenavon Limited are also committed to phase out the existing diesel forklift at the end of its life cycle, and replace it by an electric model.

Future equipment purchasing policy will include consideration of the noise produced by equipment

and the methods of work. Where a choice of methods or plant is available, the quieter will be chosen. Generally, manufacturers will include sound level output in the specifications of their equipment which the site management will refer to.

Site management will ensure that staff receive adequate information, instruction, and training in regard to keeping levels of noise as low as possible on site.

5.3. BAT under investigation

A trial will be undertaken to assess whether the operating duty of the extraction system can be reduced, as long as it doesn't affect the functionality of the plant, potentially reducing noise generation from this source. Also, the fitting of noise attenuators to the extraction system exhaust will be investigated.

Following the site visit on 20th October 2022, the operator has confirmed that the LEV/extraction system is running as designed, but it has been concluded that the design is defective in some areas so they have a new specialist coming in soon to do a professional inspection and recommend some changes.

After those changes are implemented, it is recommended that a new noise survey is carried out to quantify the effectiveness of the actions in terms of noise reduction.

Similarly, investigations will be carried out to assess whether the outdoor cooling units to the west of the building can work at reduced duty or even turned off when the requirement for cooling is low. Special emphasis for this test will be made at evenings and night-time.

6. MONITORING

As a commitment to regular review the effectiveness on the NMP, noise monitoring shall be conducted on a yearly basis at the two Monitoring Positions (MP1 and MP2) presented in Figure 3.

6.1. Monitoring Methodology

Noise Monitoring will be undertaken by a consultant certified as competent in environmental noise monitoring, and, in accordance with the principles of BS 7445¹. All noise measurements will be carried out in accordance with the guidance in BS 7445:2003: *Description and Measurement of Environmental Noise* and using equipment conforming to type one specification of BS EN 61672: 2013: *Electroacoustic Sound Level Meters, Part 1: Specifications*.

The following acoustic parameters will be recorded as a minimum:

- L_{Aeq} noise levels;
- L_{AFmax} noise levels;
- L_{A90} noise levels;

The monitoring will be undertaken during periods of operation (ambient sound) and periods of inactivity (residual sound) at the site, so an orchestrated operation of the plant will be required. The monitoring exercise shall be undertaken during the evening or night-time periods, when residual environmental noise levels are lower. A minimum of continuous 15-minutes operational and 15-minutes non-operational samples will be undertaken at each position.

6.2. Calculation of Specific Noise Levels from the Site

For the determination of the specific sound level from the site, the following calculations will be undertaken:

- Measure the ambient sound level with the site in operation.
- Measure the residual sound level in the absence of sound from the site.
- Correct for the effect of the residual sound by using the following formula:

$$L_s = 10 \lg(10^{L_a/10} - 10^{L_r/10})$$

where:

L_s is the specific sound level;

L_a is the ambient sound level; and

L_r is the residual sound level.

6.3. Reporting and Actions

Measured and calculated noise levels and monitoring procedure will be reported.

Specific noise levels from the site will be compared against those measured in October 2022 and presented in Table 2 of this report.

¹ British Standard 7445: 2003: *Description and measurement of environmental noise*. BSI.

Where the calculated noise level exceeds 52 dB(A) at NSR1 or noise from the site increases the residual sound at NSR2, investigations will be carried out to determine the source of the noise increase, and actions be taken to reduce to prevailing noise levels as far as practicable.

Should noise exceedances be identified, or noise complaints raised by the community, the site manager will take responsibility of liaising with the affected neighbours, detailing actions and contingencies in place to mitigate the problems as far as reasonable.

7. COMPLAINTS

The following procedure shall be followed in the event of noise complaints:

- All noise complaints should be immediately directed to the Site Manager.
- As soon as the complaint is received it will be recorded.
- An initial response will be made and recorded. In the event of serious noise pollution, the initial response could be to immediately cease the activity pending investigation. However, in most cases it might not be practicable to provide immediate relief. The complainant will be informed of actions and contingencies in place to mitigate the problems as far as reasonable.
- Where the initial response does not address the complaint, further investigation, corrective action, and follow-up monitoring shall be undertaken as appropriate.
- All actions will be recorded, and the complaint will then be closed.

8. CONCLUSION

This document presents the noise and vibration management plan (NVMP) for the Recover Blaenavon Limited site at Kays & Kears Industrial Estate, Blaenavon, Pontypool, NP4 9AZ.

It is noted that Recover Blaenavon Limited is an established industrial facility in Blaenavon, which has been in operation for a number of years, apparently without noise complaints.

Current operations are carried out with consideration to best practices with regards to noise. Further mitigation commitments and investigations are presented in this NVMP.

A schedule of noise monitoring is also presented to ensure that operational noise do not increase at the nearest and most affected Noise-Sensitive Receptors.

Appropriate procedures to follow in the event of noise complaints from local residents are also provided.

