Management Plan

Noise – Holmfirth Dyers Limited

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Document control

Role	Responsibility
Group Risk & Compliance Manager	Originator, Reviewer
Commercial Director	Approver

Revision	Date	Summary	Status
R.01	27/05/2022	Originated	Draft

This is a working document that will be reviewed at least every two years to ensure that it remains relevant to site operations and to determine whether further controls or improvements can be implemented.

The plan will be reviewed in the event of any substantiated noise complaints, or if a significant issue is known to have occurred (identified by noise monitoring).

Introduction

Purpose

Holmfirth Dyers Limited (HFD) hereafter shall operate and maintain this Noise Management Plan in order to prevent, or where this is not possible, minimise the nuisance potential of noise from the Dunford Road Holmfirth Site. The location of the site is such that potentially sensitive receptors lie within 1 mile of the site boundary. It has documented this noise management plan in response to noise assessment report conducted in March 2022, and in support of its application for a part A permit with the Environment Agency.

Scope and exclusions

This document is applicable to all site activities including those carried out by employees and sub-contractors working on-site.

This noise management plan is a working document with the specific aim of ensuring that:

- those in control of noise emitting assets understand and accept Holmfirth Dyers responsibility for controlling noise impact and ensure that any noise control equipment is designed, operated and maintained appropriately so it controls noise effectively at all times;
- noise problems from normal, abnormal and emergency situations are risk assessed, and that appropriate controls (both physical and organisational) are implemented to manage the risks;
- monitoring of noise is established and details of the actions that shall be taken when problems arise;
- procedures are implemented to manage the reduction or ceasing of operations that cause serious noise pollution, and for engaging with neighbours to minimise their concerns and responding to complaints;
- the effectiveness of this noise control measures identified in this noise management plan are periodically reviewed.

It has been considered necessary to undertake a formal environmental noise assessment at the HFD site as part of its application for a bespoke permit; see Noise assessment on page 3.

Definitions

Holmfirth Dyers shall be known as **HFD** throughout the remainder of this document.

Competent person is someone who has received the necessary training or has a recognised qualification and/or skill to carry out the task correctly.

EMS refers to the site Environmental Management System.

Responsibilities

HFD Environmental Management Team

- Responsible for overall delivery of the environmental commitments of the facility whilst undertaking normal business operations and related activities
- Liaison with environmental regulators such as the EA and other regulatory bodies in the event of an emergency.
- Assess and plan measures to minimise potential noise emissions from the site.
- Monitors site activities and ensures control measures are in place, including noise control.

All Staff

- Responsible for ensuring that good housekeeping measures are implemented at all times.
- Report any unexpected noise from the site.

Training

Relevant staff will be trained as part of the site's EMS in noise identification procedure.

All staff responsible for waste management, effluent and external activities will also be trained in odour management, how to complete olfactory monitoring and reporting odour complaints.

Noise assessment

Site location

HFD is located on Dunford Road over the River Ribble, Holmfirth, HD9 2DP – National Grid Reference SE 143080, as illustrated on the site location - Figure 1.

Figure 1 – Site location

The site covers an area spanning approximately 320 metres in length, and consists of five distinct buildings covering different activities:

- Goods in and out
- office and reception building;
- preparation and finishing facility, covering sperotto, tentering and hydro-washing;
- dyeing facility, consisting of winch dyeing and jet dyeing;
- drying facility consisting of an industrial dry-cleaning unit; and,
- boiler room.

Other activities include:

- effluent treatment plant;
- chemical storage; and
- other storage/maintenance unit.

Also refer to document 'HFD Site Layout- Sept'21'.
The site is surrounded by commercial and residential properties. The closest residential property is located about 14m Southwest of the site to the top of the valley.

The site is operational 24 hours a day 7 days a week.

Sensitive receptors within approximately 60m radius of the site are listed in Table 1.

Noise Sensitive Receptors (NSRs)

Some receptors are generally more sensitive than others to odour. Domestic residences can be highly sensitive to noise potential and will generally be more sensitive than industrial or commercial operations. Additionally, some individuals will be less tolerant of noise than others due to heightened sensitivity, through for example, a medical condition, or exposure experience, e.g., recognising noise or experiencing regular exposure.

Table 1 provides a list of potential noise sensitive receptors near to the HFD site. Figure 1 provides a map of those noise sensitive receptor locations.

Receptor Reference	Receptor name	Potential Sensitivity	Grid Reference	Approximate Distance from Site (m)	General Direction from site
R1	Residential	High	SE 14311 08016	20	Southwest
R2	Residential	High	SE 14244 08053	66	West
R3	Residential	High	SE 14418 07984	15	Southeast
R4	Residential	High	SE 14396 08045	15	East
R5	Residential	Medium	SE 14407 08101	70	Northeast

Table 1 – Noise Sensitive Receptors (NSRs)

Figure 2 – Map of noise sensitive receptor locations

Noise source

An investigation into the sources of noise was completed during a noise assessment conducted by an Acoustic Consultant operating on behalf of Envirocare. The Acoustic Consultant is qualified under the Institute of Acoustics Diploma in Acoustics and Noise Control and holds a Certificate of Competence in Environmental Noise Measurement. The assessment was conducted against the requirements of BS 4142:2014 +A1:2019.

The goods in and out process from the 'bottom' and 'top' loading bay and any noise associated with workplace transport, vents, fans, pipework and other process equipment was considered to present the possibility of noise that could be a source of nuisance to the identified sensitive receptors.

Figure 2 below demonstrates three locations from which noise was monitored during a 24- The hour period.

Figure 3 – Map of on-site measurement locations

Figure 3 and Figure 4 below show the locations from which background noise monitoring was conducted. The noise levels at these locations were measured for 15 minutes each during daytime and night-time hours. BG1 is located closer to the road, while BG2 is located further up the valley. The background measurements consisted of noise in the local area in the absence of any noise generated from the HFD site and are considered to be representative of typical environmental conditions.

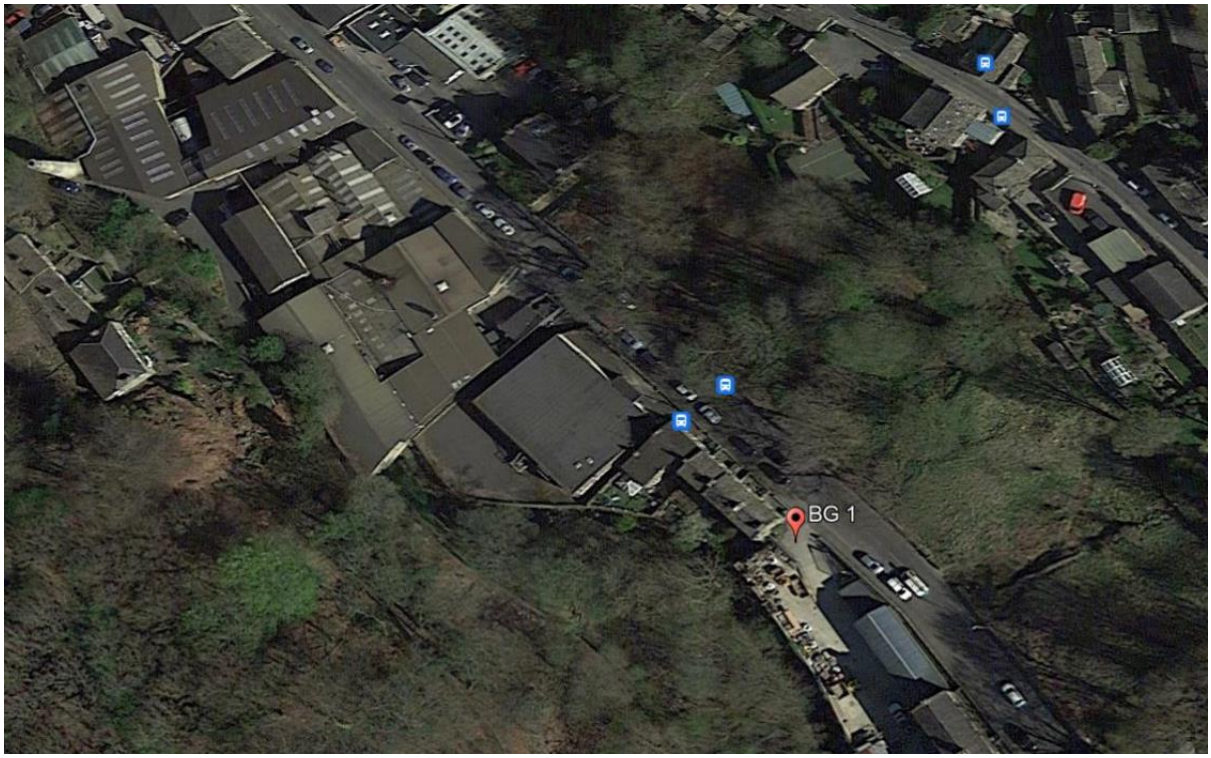


Figure 4 – Map of (L_{A90}) Background Monitoring Location (1)

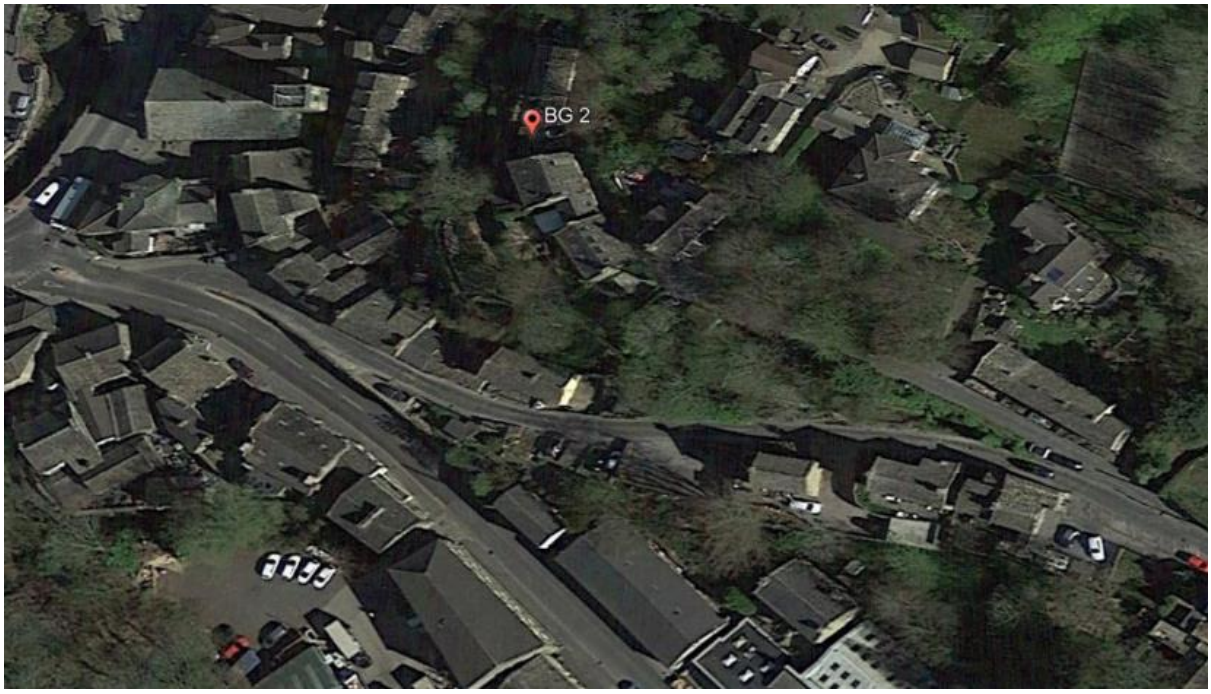


Figure 5 – Map of (L_{A90}) Background Monitoring Location (2)

Predicted Noise Levels

Receptor Location	Measurement Location	Activity of Location	Source to Measurement Location (R1)	Source to Receptor (R2)	Calculation (LOG10(R2/R1)*20)	Measured Level (LP1)	Predicted Level at Receptor (LP2)
R3	MP1	Goods out	3	38	*22.1*	68.4	**46.3**
R4	MP1	Goods out	3	25	*18.4*	68.4	**50.0**
R5	MP1	Goods out	3	80	*28.5*	68.4	**39.9**
R2	MP2	Goods in	7	65	*19.4*	58.9	**39.5**
R4	MP3	Driveway	2	47	*27.4*	66.9	**39.5**

Table 2 – Predicted sound levels

Assessed Noise Levels

Table 3 below demonstrates the noise assessment results and compares the sound levels of the normal operations at the Holmfirth site against those of background sound levels. Using the Table 4, the results are assessed as either Significant, Adverse, Unlikely or Low.

Receptor & Time	Background Sound Level	Measured Sound Level	Acoustic Feature Correction	Rating Level	Excess Over Background	Impact Indication
R1 Daytime	47	56	3	59	**12**	Significant
R1 Night-time	41	47	0	47	**6**	Adverse
R2 Daytime	47	50	3	53	**6**	Adverse
R2 Night-time	41	48	0	48	**7**	Adverse
R3 Daytime	47	49	0	49	**2**	Unlikely
R3 Night-time	41	41	0	41	**0**	Low
R4 Daytime	47	55	3	58	**11**	Significant
R4 Night-time	41	47	0	47	**6**	Adverse
R5 Daytime	47	52	3	55	**8**	Adverse
R5 Night-time	41	45	0	45	**4**	Unlikely

Table 3 – Assessed Noise Levels

Receptor Locations R1 & R4

Daytime noise under normal operating conditions could be considered to have a Significant Adverse Impact on residents. Night-time noise under normal conditions could be considered to have an Adverse Impact. Furthermore, the despatch operations from the 'top' despatch loading bay could be considered to have a Significant Adverse Impact on residents of R4.

Receptor Locations R2 & R5

Daytime noise under normal operating conditions could be considered to have an Adverse Impact on residents. Night-time noise under normal conditions could also be considered to have an Adverse Impact.

Receptor Location 3

Daytime noise under normal operating conditions could be considered to have an Unlikely Impact on residents. Night-time noise under normal conditions could also be considered to have a Low Impact.

Noise pathways

In the event of failures of noise mitigation measures on site, it is possible that noise could be transported from the source to sensitive receptors via the atmosphere. The level of dispersion is dependent on:

- atmospheric stability;
- wind speed;
- wind direction; and
- enclosures.

The greatest frequency of events involving noise amplification tends to occur on cool calm days and nights when the temperature inversions refract sounds down. This is not to say, however, that noise impacts may not occur in other weather conditions.

Noise receptor

Noise was defined in the Wilson report published in 1963 as 'unwanted sound'.

Noise is recognised by the World Health Organization (WHO) ('WHO Environmental Noise Guidelines for the European Region 2018') as the second most harmful environmental stressor in Europe behind air pollution.

The harmful effects come from the stress reactions it causes in the human body (which continue during sleep). These reactions can lead to:

- increased heart rate
- high blood pressure
- cardiovascular disease
- premature deaths
- cognitive impairment
- sleep disturbance
- hypertension
- annoyance

Noise Sensitive Receptors in the immediate vicinity of HFD are residential as stated on page 4.

Noise impacts

Table 4 contains an assessment of the source, pathway, receptor potential of the site.

Source	Pathway	Receptor	Probability of exposure	Potential consequence of not managing noise	Overall risk
Handling and loading of goods in	Air transport / refraction	Residential	Medium	Negative impact on residential activities. Cause annoyance, negative reputation.	Low
Processing Activities (Tenter, dyeing, tumbling, drying)	Air transport / refraction	Residential	Medium	Negative impact on residential activities. Cause annoyance, negative reputation.	Medium
Handling and loading of goods out	Air transport / refraction	Residential	High	Negative impact on residential activities. Cause annoyance, negative reputation.	Medium

Table 4 - Source, pathway, receptor

Complaints and monitoring

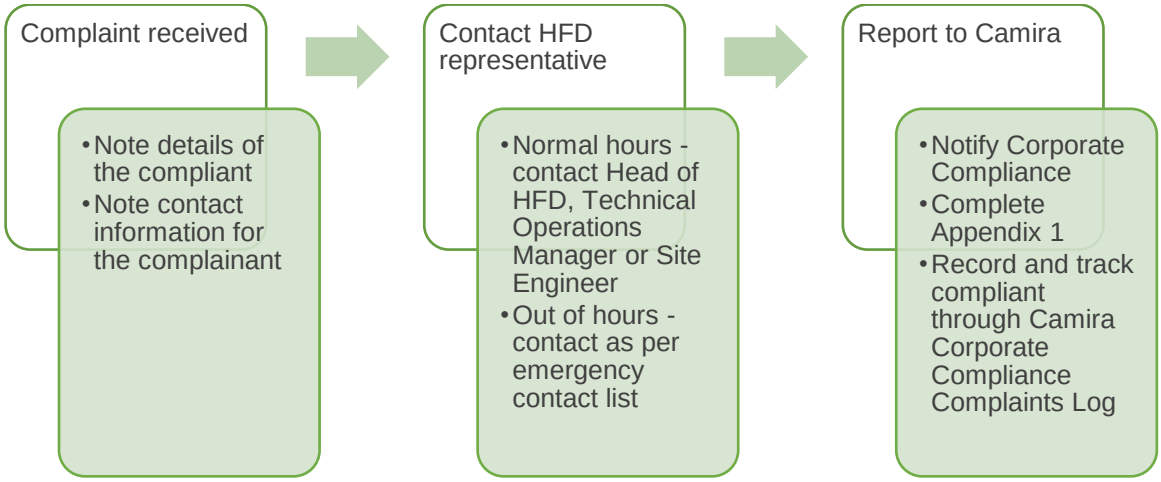
Complaints

The aim of HFD is to achieve minimal noise emissions beyond the site boundary. Where this is not possible, this Noise Management Plan aims to ensure that noise escaping the site boundary does not cause an unacceptable level of nuisance to nearby receptors.

Historically HFD has received complaints regarding noise from site activities, which was reported to and dealt with by the Local Authority. Investigations have concluded that HFD consider modification to the timing of some operational activities and use of ventilation systems. Where future complaints may arise, complainants should report directly to HFD through phone or email, as well as any communications from the Environment Agency or Local Authority, where HFD will respond directly.

Complaint procedure

The following process applies at all times for receiving and actioning complaints:



Any noise complaint, irrespective of source and any noise issue is fully investigated, using the Noise Complaints Report Form in Appendix 1.

The investigation shall also include visiting the area from where the complaint came (if known) and a check on the weather conditions at the time of the complaint, generally by the use of local weather station reporting. The investigation should include checks on all process activities at the time including loading and unloading, workplace transport, and use of ventilation and boiler systems.

Following noise complaints or issues, the level of noise monitoring should be increased, particularly in the area where the complaint originated. Investigation shall be carried out and suitable response implemented.

Monitoring

The introduction of an Environmental Management System (EMS) has resulted in improved on-site monitoring of emissions, including checks for visible signs of emissions from external emission points. The EMS is based on the principals of ISO 14001.

On-site checks

Regular inspections are carried out across the site which include environmental factors including noise and vibration.

Any abnormal findings would be reported and investigated as a matter of priority.

Off-site checks

Investigations would be based around any complaints received using the Noise Complaint Report Form in Appendix 1. In the event of any abnormal finding, the level of noise checking would be increased.

Noise assessments may also be carried out by the Environment Agency upon receipt of complaints to the local officer. Corrective Action Report (CAR) forms would be received by HFD and investigated thoroughly.

Noise control procedure

As per Table 3, noise emissions from the factory range from “Low” to “Significant”.

The risk of noise issues can be vastly reduced or eliminated due to the following control measures being in place or are adhered to:

Source	Control Measures
Handling and loading of goods in	• Goods being delivered to site shall be received at the loading dock in the ‘back-yard’ where there are limited noise sensitive receptors. • All deliveries shall be received between 7am and 7pm. • Workplace transport used during the unloading process shall be fitted with white noise reversing beacons. • All deliveries are supervised by a competent member of HFD staff.
Processing Activities (Tenter, dyeing, tumbling, drying)	• Doors shall be closed wherever possible to prevent the escape of process noise. • Ventilation systems shall be subject to regular maintenance to ensure minimal vibration; times shall also be restricted to operate between 7am and 9pm. • Floors shall be maintained to ensure smooth surface and reduced vibration. • Wheeled carts shall be specified to ensure use of shock absorbing materials where possible.
Handling and loading of goods out	• All loading activities shall only take place between 7am and 5pm. • Adequate time shall be allowed to the loading process to prevent increased FLT speed causing increased stillage vibration. • Workplace transport used during the unloading process shall be fitted with white noise reversing beacons. • All loading activities are supervised by a competent member of HFD staff.

Table 5 - Noise Control Measures

In addition to these the following general control measures are in place on site:

- Regular checks are undertaken of the pipework and ducting to ensure good working order.
- All equipment is subject to routine maintenance and kept in good working order.
- All complaints are taken seriously and investigated to the best of HFD ability and reported to the Environment Agency or Local Authority where applicable.
- A bespoke Environmental Management System is in place. The Group Risk and Compliance department shall be responsible for ensuring that noise control measures outlined are adhered to.
- Investigations are based around checklists located in Appendix 1. On receipt of a complaint, the residential area shall be visited and assessed immediately, or if this was not possible then on a day with the same weather conditions and approximately same time as far as reasonably practicable.

Abnormal conditions

Abnormal situations may arise at the site during a breakdown or period of unplanned maintenance. However, the factory has a planned maintenance regime within their Environmental Management System which covers the whole plant as well as using external specialists and an onsite maintenance team. This minimises the probability of a breakdown through good management practice. Abnormal or emergency situations to be considered include:

- abnormal meteorological conditions;
- breakdown of process equipment and plant;
- staffing issues;
- power failure; and
- vandalism.

The noise control procedure outlined above is to be adhered to. If noise is released from the factory with potential to cause a nuisance to sensitive receptors the Environment Agency should be contacted and informed.

Consideration of noise and the need to control emissions shall be considered prior to any changes to operational processes are implemented, or equipment installed. Any new processes or equipment is assessed, and a decision made if it could contribute or increase noise emissions.

Appendix 1

Noise Complaint Report Form	
Date: Time:	Complainant name: Complainant address:
Complainant telephone: Complainant email address:	

Date of Noise:		
Time of Noise:		
Location of Noise:		
Weather conditions:		
Temperature:		
Wind direction:		
Wind strength:		
Complainant description of noise: 1. What does it sound like? 2. Duration? 3. Frequency in this period? 4. Any other comments:		
Any similar complaints?		
Any other information?		
Complaint upheld?		
Coinciding processes?		
Coinciding operating conditions?		
Corrective actions taken:		
Completed by:	**Date:**	**Signed:**