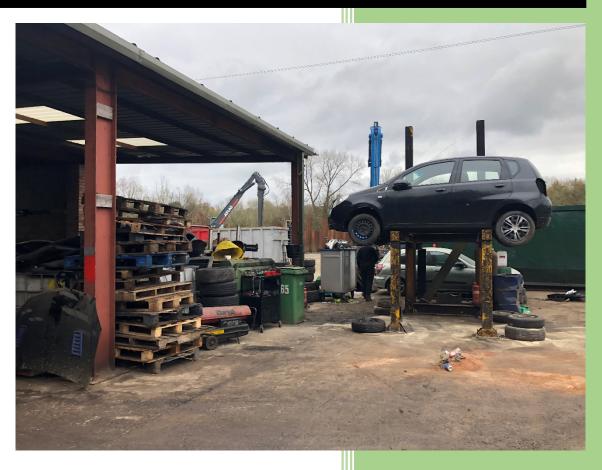


# Noise & Vibration Management Plan



## **Lloyds Metals Limited**

Raikes Clough Industrial Estate, Raikes Lane, Bolton, BL3 1RP.

November 2020

Ref: LMP.PT.NVMP.2011

**AC Environmental Consulting Ltd** 

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#### 1. INTRODUCTION

AC Environmental Consulting Ltd, on behalf of Lloyds Metals Limited, have prepared a Noise and Vibration Management Plan (NVMP) for a site located on Raikes Clough Industrial Estate, Raikes Lane, Bolton, BL3 1RP.

The objective of this plan is to provide a framework for site activity noise and vibration management to ensure that noise and vibration levels do not impact on neighbouring buildings.

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

All site personnel will be required to read and sign the noise and vibration induction form as shown in Appendix 2. If required, specific training will be provided for site personnel.

## 1.1 Site Overview

The site is located at the end of a private road on the Raikes Industrial Estate in Bolton. The site consists of an upper and lower yard. The permitted area includes the lower yard only which is where all the metal recycling and ELV operations occur. The permitted area is surrounded by a 3m high brick wall and consists of an external yard with various storage areas and four sheds for additional storage and processing. The upper yard lies outside of the permitted area and is used for the storage of parts, vehicles, and mobile plant. To the north is the River Tonge and to the west is the River Croal. There are additional industrial and commercial businesses to the east and west with a small woodland area immediately to the west. The closest residential area is situated approximately 100m from the centre of the site to the north east on Riverbanks. There is also residential housing on Higher Darcy Street located approximately 225m from the centre of the site to the north west.

This plan accompanies a Bespoke Environmental Permit application that aims to obtain an Environmental Permit which will allow for the site to operate as a metal recycling, ELV depollution and dismantling operation in compliance with the Environment Agency guidelines.

The site location and relationship to the landscape is shown in Figure 1 below.

Figure 1.1 Site Location



## 1.2 Site Activities and Equipment

The site is operating as a metal recycling, ELV depollution and dismantling facility. Activities undertaken which have the potential to create noise include the operating of existing site plant and machinery, regular vehicle manoeuvring and regular vehicle access, including HGV traffic. It is crucial to note that there are significant, well-established industrial activity already at the location of the site, including concrete works, a "Viridor" waste recycling facility, an incinerator (which it understood is often audible), joinery company, Ultra Finishing manufacturers and heating engineers.

The client seeks to obtain a Bespoke Environmental Permit to operate in compliance with the relevant guidelines and accept approximately 40,000 tonnes of waste per year, 5,000 tonnes of which are ELVs.

The main activities undertaken on site are waste sorting on arrival, metal recycling, ELV depollution and dismantling, and the storage of metal and depolluted ELVs. Waste sorting operations are the most likely activities to result in noise, which include the use of grab excavators and mechanical shovels. Waste processing is also expected to result in noise as various forms machinery is used including a baler, mobile sheers and a Le Fort Shear/Baler. It is crucial to note that sound proofing panels have been installed along the area of the site perimeter that is adjacent to the Le Fort Shear/Baler.

The most significant sources of noise are generated by the Le Fort Shear operations in the north east area of the site. Noise is also produced by the movement of specific plant such as the Atlas Loader Shovel, Fuchs Grab Excavator, and forklift trucks. It is important to note however, that the only machinery/plant that are constantly operational are the Le Fort Shear, associated Atlas Grab, and the Fuchs Grab Excavator. Sound proofing panels have been installed around the hydraulic pump and engine room of the Le Fort Shear, and a clay mound has been constructed with 250 larch conifers planted on the surface along the eastern boundary of the site. An acoustic barrier is to be installed prior to the issue of the permit to provide additional noise attenuation for the Le Fort Shear and associated operations at the north eastern boundary of the site. Further detail on mitigation can be found in Section 8.

#### 2. CRITERIA

For industrial sources of noise, BS4142:2014 – Rating Industrial Noise Affecting Mixed Residential and Industrial Areas is normally referenced. This British Standard described a method for assessing whether a specific sound may have an adverse impact.

The Standard requires that the ambient noise (totally encompassing sound in a given situation at a given time, usually composed of sound from many sources near and far) including the "specific" sound from the source in question is measured in terms of the equivalent continuous sound level LAeq, which is then corrected for the residual sound (total LAeq excluding the "specific" sound).

A correction for character is made if "a tone, impulse or other characteristic occurs" and for intermittency, as shown below.

Table 2.1

Commercial/industrial	Perceptibility		
noise characteristic	Just perceptible	Clearly perceptible	Highly perceptible
Tonality	+2	+4	+6
Impulsivity	+3	+6	+9
Intermittency	0	+3	+3
Other sound characteristics	0	+3	+3

The final figure, including any character correction is known as the Rating Level.

This Rating Level is the compared with the measured background [LA90] level. The greater this difference the greater the likelihood of "adverse impact" (See Notes 1 & 2 from Bs4142:2014 below).

#### NOTE 1

- a) Typically, the greater this difference, the greater the magnitude of the impact.
- b) A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.

- c) A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.
- d) The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

#### NOTE 2

Adverse impacts include, but are not limited to, annoyance and sleep disturbance. Not all adverse impacts will lead to complaints and not every complaint is proof of an adverse impact."

It can be seen from Section 3.3 above that the conclusions to a BS4142 assessment also depend on the context and Section 11 of the British Standards states:

"Where the initial estimate of the impact needs to be modified due to the context, take all pertinent factors into consideration, including the following:

- 3) The sensitivity of the receptor and whether dwellings or other premises used for residential purposes will already incorporate design measures that secure good internal and/or outdoor acoustic conditions such as:
  - i. Façade insulation treatment;
  - ii. Ventilation and/or cooling that will reduce the need to have windows open so as to provide rapid or purge ventilation; and
  - iii. Acoustic screening."

The Noise Impact Assessment Ref: E17323 that was undertaken on 31<sup>st</sup> October 2020 revealed the anticipated background noise levels to be experienced at the closest sensitive receptors.

The anticipated background noise level to be experienced at the residential properties on Riverbanks is measured to be 60 dBA. Individual measurements with the grab excavator and Le Fort Shear (referred to as the crusher within the assessment) at a distance of 55m showed measurements of 64 dBA. The average anticipated background noise levels for Riverbanks is therefore 60 dBA – 65 dBA.

The anticipated background noise level to be experienced at the residential properties on Higher Darcy Street is measured to be 54 dBA.

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3. VIBRATION

BS 6472-1:2008 Guide to evaluation of human exposure to vibration in buildings. Vibration sources

other than blasting provides the best available information on the application of methods of

measuring and evaluating vibration in order to assess the likelihood of adverse comment.

4. HOURS OF OPERATION

The operating hours for the site are as follows:

Monday - Friday: 08:00 - 17:00

Saturday: 09:00 - 14:00

Sunday and Bank Holidays: Closed

5. SOURCES OF NOISE

The BS4142 assessment Ref: E17323 highlighted that prior to the site becoming operational, the noise

monitoring position at the residential properties on Riverbanks experienced constant noise from the

flowing river throughout as well as distant road noise. Additionally, there was industrial type noise

present before the site was open including impulsive noise. At the monitoring location on Higher Darcy

Street, distant road noise and industrial noise was present before the site became operational

including e.g. reversing alarms.

Prior to the Saturday operational hours of Lloyds Metals Limited, the BS4142 assessment indicates

that the ambient background level (L90) experienced at Riverbanks (monitoring Position 1) between

08:00 and 09:00 was 59.2 dBA. At Higher Darcy Street (monitoring Position 2), the ambient

background level (L90) between 08:00 and 09:00 was measured to be 60.2 dBA.

During the Saturday operational hours of the site, the assessment determined that the ambient

background level (L90) experienced at Riverbanks (monitoring Position 1) between 09:00 and 10:00

was 63.6 dBA; a small increase of +4.4 dBA compared with when the site is not operating. It is evident

that that the nearest sensitive receptors (monitoring Position 1 and Position 2) experience significant

noise levels from sources that are already present including nearby road traffic and industrial activity

from other businesses within the location.

The key sources of noise on site are produced by the machinery, plant and vehicles present and

associated activities. The machinery and plant that are constantly in use on site consist of the Le Fort

Shear (referred to within the assessment as the crusher), the Atlas Grab Excavator and the Fuchs Grab

Excavator. The Le Fort Shear and associated Atlas Grab measure at an LAeq dBA of 79.6 at a distance of 10m. This equipment is located in the north eastern area of the site. The Fuchs Grab Excavator measured at an LAeq dBA of 77.1 at a distance of 10m. There is also constant movement of site vehicles which result in an LAeq dBA of 65.6 at a distance of 10m.

The plant and machinery that are occasionally in use range in an LAeq dBA from 62.3 – 77.6 at a distance of 10m. This plant and machinery include the forklift trucks, the Atlas Loader shovel, the cropper, and the baler, which are in operation for 10-15 minutes every hour.

The assessment identified a level of uncertainly in levels of noise produced depending on how well the machinery is maintained, and how considerately it is operated. The assessment estimated that noise levels from the facility are likely to result in an adverse impact at the residential properties at Riverbanks (monitoring Position 1) as the levels are likely to exceed background levels. However, it was also estimated that the noise levels from the facility are not likely to result in an adverse impact at the residential properties at Higher Darcy Street (monitoring Position 2) as background levels will not be exceeded.

To mitigate the estimated adverse impact on Riverbanks, a noise reduction of between 11dBA and 16dBA is necessary. Further information on the sources of noise produced on site are shown in Table 5.1 below. Crucial detail on mitigation measures to prevent adverse impacts on Riverbanks is provided in Section 8.

Table 5.1 Sources of Noise

Ranking	Activity	Mitigation	
1	Le Fort Shear	Sound proofing panels installed around the engine room and	
	and Atlas	hydraulic pump of the Le Fort Shear. Clay mound constructed with 250 $$	
	Grab	larch conifers planted. Acoustic barrier to be installed along eastern	
		boundary prior to the issue of the permit.	
2	Deliveries of	Vehicles accessing site are restricted to 5mph at all points within the	
	Waste	site. This speed limit is communicated to staff through induction	
		training and reinforced via toolbox talks. Visiting drivers have site	
		induction training annually which includes the speed limit	
		requirement and the reasons for this.	
3	Site Traffic –	Site speed limit of 5mph introduced and to be strictly enforced.	
	plant & vehicle	Progressive repairs to surfaces are undertaken to reduce vibration of	
		plant and noise from metal/metal impacts on vehicles.	

Visiting drivers are to be inducted and site staff to be informed of the requirements. Staff to be trained via toolbox talks. Site management shall monitor traffic speeds and resulting noise and strictly enforce the speed limit.

## 6. POTENTIAL RECEPTORS

There are two noise sensitive receptors in the general vicinity of the site which are given in Table 6.1 below. The BS4142 assessment indicates that the anticipated resultant noise level to be experienced at the residential properties on Riverbanks is measures to be 60 dBA. The resultant noise level to be experienced at the residential properties on Higher Darcy Street is measured to be 54 dBA.

Receptor Sensitivity Ranking	Receptor Information
1	Position 1 – Residential houses on Riverbanks.
2	Position 2 – Residential houses on Higher Darcy
	Street.

There are additional residential properties to the north east, east, and north west within 0.5-1km of the site. There are also a variety of industrial and commercial businesses to the south and south east. The aforementioned properties are considered at a sufficient distance such that detailed assessment is not required.

The drawing Ref: Figure 2 – Receptors ("Riverbanks" at position 1 and "Higher Darcy Street" at position 2) within the noise impact assessment Ref: E17323 can be found in Appendix 1.

## 6.1 Noise Monitoring Locations

The noise monitoring positions are spread over two different locations at the closest noise sensitive receptors which are the residential properties on Riverbanks and Higher Darcy Street. The noise monitoring locations range from within 100m and 225m of the centre of the site. These locations can be viewed in more detail in Appendix 1.

## 6.2 Vibration Monitoring Locations

Due to the nature of the operations on site, the vibration monitoring locations are the same as the noise monitoring locations mentioned above.

#### 6.3 Vibration

It is not anticipated that ground-borne vibration will be an issue.

## 7. SITE DESIGN

The site is designed to be an ELV depollution and scrap metal recycling operation with a layout that ensures freedom of movement. The site handles approximately 40,000 tonnes of waste per year, 5,000 tonnes of which are ELVs.

The permitted area is fully surfaced with impermeable concrete and covers the lower yard of a larger site. The upper yard, which is outside of the permitted area, has a hardcore surface as is used for the storage of mobile plant and non-waste car parts. The lower yard is where all ELV depollution and scrap metal recycling operations occur and is clearly separated from the upper yard. The permitted area has a perimeter made up of a 3m high brick wall with 8m steel gates.

There are three designated ELV depollution stillages for the ELV processing and stripping operations; two in the north west of the site adjacent to Shed 1 and one in the south east of the site to the north of Shed 3. Each form of waste and product from the ELVs is assigned a designated storage area as shown on Drawing Ref: 200401LM101.

There are four sheds on site that are all designed for different purposes. Shed 1 is the main storage are for car parts that are recovered from ELVs during the depollution and stripping process. Shed 2 contains non-ferrous metal storage, cable stripping and shearing operations with an office portacabin to the west. Shed 3 is used for the storage of tyres and body panels that have been recovered from ELVs pending resale. Shed 4 is the designated area for ELV batteries to be stored. Batteries are immediately removed from ELVs upon receipt and transferred to the purpose built battery boxes within Shed 4.

The south west and south east areas of the permitted area are used for the storage of depolluted ELVs in numerous stockpiles. No undepolluted ELVs are stored on site.

The remaining areas of the external yard, that are not used for depolluted ELV storage, are used for the storage of scrap metal and waste tyres. Scrap metal is stored within the 40cyd skips within the central area of the site and steel is assigned to the three steel stockpiles for storage along the northern and eastern boundary. Waste tyres are stored in the 40cyd skip to the east of Shed 1. The external yard also has a weighbridge, portacabin and canteen to the south, and a quarantine area with a 6m buffer zone in the centre.

Further detail on the site design is shown on Drawing Ref: 200401LM101 in Appendix 3.

## 8. MITIGATION

## 8.1 Noise Management Plan

It is crucial to minimise noise levels that have the potential to reach sensitive receptors by reducing the noise at its source, ensuring there is adequate distance between the source and the receiver, and using barriers between the source and the receiver. Due to the results from the noise impact assessment Ref: E17323, nature of the site operations and location, the following general noise and vibration control measures have been implemented and will be monitored to ensure that staff carry out these measures at all times.

Equipment/process	General noise control measures
Mobile and fixed plant	Only use required power and size of equipment.
Mobile and fixed plant	Atlas and Fuchs Excavator operations shall only occur in the
	designated area to the north east in association with the Le Fort Shear
	to be screened by the acoustic barrier which will be installed prior to
	the issue of the permit.
Mobile and fixed plant	Engine exhausts shall be fitted with silencers.
Mobile and fixed plant	Operate equipment in a quiet and efficient manner. Do not drop
	materials, place wherever possible. Do not drag items across the
	ground especially when moving skips.
Mobile and fixed plant	Plant shall not be left idling unnecessarily.
Mobile and fixed plant	All plant shall be inspected and maintained equipment.
Mobile and fixed plant	Endeavor to sequence work to provide respite periods.
Mobile and fixed plant	Schedule particularly noisy activities as late as possible in the morning
	and during hours when residents who work can be expected to be at
	work. Identify any particularly sensitive times for residents during
	consultation.

Mobile and fixed plant	Strictly enforce speed limits around site. Explain to staff the impact on
	noise of high speeds. Train staff on the requirements for strict
	compliance with this requirement via use of toolbox talks.
Management	Ensure that all plant is fitted with quiet, non-tonal reversing alarms.
	Any plant not so equipped shall be retro fitted with quiet non-tonal
	alarms. When plant is replaced choose plant with quiet, non-tonal
	reversing alarms, such as white noise alarms rather than high pitched
	bleepers.
Management	Construction noise and vibration management is included as part of
	site management practices and site training including site induction
	training.
Management	Instruct staff to keep building doors closed when not in use, reinforce
	this through training and take action to ensure the instruction is
	followed.
Management	There is a requirement that all staff will be provided with the
	information from this noise and vibration plan and will sign on receipt
	of the information.
Management	Routinely inspect surfacing for defects and damage and implement
	repairs as a matter of urgency to maintain smooth surface clear of
	large cracks and potholes.
Management	Management will hold regular toolbox talks / briefings on the subject.
Screening	Sound proofing panels for Le Fort Shear engine room, anti-vibration
	matting for Le Fort Shear hydraulic pump, 250 larch conifers on 2m
	high clay mound along eastern boundary, 4m acoustic barrier along

## 8.2 Screening

## 8.2.1 Sound Proofing Panels

The site has installed sound proofing panels around the engine room and the hydraulic pump for the Le Fort Shear/Baler. The sound proofing panels will aid the reduction of noise levels produced by the Le Fort Shear/Baler when in use which will reduce the operation having an adverse impact on the residential properties to the north east of the River Tonge on Riverbanks.

#### 8.2.2 Clay Mound and Larch Conifers

In addition to the sound proofing panels, a clay mound measuring 2m in height and 4m in width has been constructed across the river boundary to the east of the site. A total of 250 larch conifers have been planted on the clay mound along the western bank of the river to provide screening once mature. The noise impact assessment Ref: E17323 assessed that the conifers will potentially reduce noise levels by 2-3dBA if sufficiently dense. In addition, the conifers will provide excellent visual screening.

#### 8.2.3 Acoustic Barrier

The site also aims to install an acoustic barrier fence between the existing 3m high steel piling fence and the clay mound which will line the entire eastern boundary. The barrier will be installed prior to the issue of the permit and will measure 4m in height and be constructed from RSJ panels at 2m intervals fitted out with railway sleepers. Acoustic panels will then be attached to the barrier which will stretch along the whole length of the Le Fort Shear/Baler between the steel piling fence and the clay mound and beyond to the end of the eastern boundary.

The noise impact assessment Ref: E17323 details in a calculation that suggests that the 4m acoustic barrier, when at a 10m distance from the Le Fort Shear, may provide 23.5BA of attenuation. It is recommended that the Fuchs Grab also be operated only in the vicinity of the barrier as this is recognised to be a significant source of noise. The loader shovel and all other activities noted will be out of the line of sight from Riverbanks and so should not be so problematic.

## 8.3 Purchasing

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 site management will refer to.

Where vehicle-reversing alarms are used, because of their tone, site management will use adjustable or directional audible alarms in regard to future purchasing, or other alternative warning systems. For example, white noise alarms give a full spectrum of noise rather than a single tone, which is claimed to be as good as a single tone alarm at close range and at a distance it blends into the background. Reversing will be kept to a minimum.

#### 8.4 Maintenance

Lloyds Metals Limited will ensure that regular and effective maintenance is carried out. This will contribute to greater efficiency in operation and reduce noise on site. Particular attention will be paid

to mobile plant e.g. sufficient lubrication, the preventing of vibration from loose parts, engine noise and any acoustic enclosures.

## 8.5 Site Operations

The height from which material will be dropped will be minimised. Special care will be taken to avoid metal on metal impact.

Where possible rubber or other suitable linings will be used to reduce the noise of impact where waste items are deposited (as identified by site management) e.g. into the RoRo skip.

Within the constraints of efficient production, site management will limit the use of particularly noisy plant such as only using the trommel for half an hour rather than an hour. Also, site management will limit the number of items in use at any one time and starting plant and equipment one by one and switching off when not in use.

Site management will ensure that site staff avoid unnecessary revving of engines, reducing speed of vehicle movement, maintain roads to minimise vehicle noise; and pointing directional noise away from sensitive receptors where possible. Vehicle routes and surfaces will be kept smooth free from debris to prevent additional noise i.e. "crunching" and "cracking" as vehicles drive over the debris.

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 with the use of screens, methods and avoiding impact. Site management will also use notices and signs to remind staff and visitors.

Training will be delivered through issuing site procedures, induction training and toolbox talks, and will include:

- Avoiding unnecessary revving of engines and switching off equipment when not required;
- Keeping internal routes well maintained;
- Avoiding impact noise;
- Minimising drop heights of materials;
- Avoiding reversing (reversing alarms);
- Utilising screens and barriers;
- Starting up plant and vehicles sequentially rather than all together.

## 8.6 Sequencing

The site manager will liaise with the local community to enable noisy operations to take place at times when they would have the least impact on the occupiers.

By implementing the above noise action plan and control methods, noise produced on site can be effectively managed and reduced.

## 9. MONITORING

Noise monitoring shall be conducted by the Site Manager on a daily basis. The monitoring will consist of a two stage process. In the first instance routine monitoring noise for noise will form part of the site inspection regime as described in the Site Management Plan and procedures.

- Site management will regularly patrol the site boundary and listen out for potentially problematic noise emanating from the site to ensure that the noise action plan is effective.
  Any additional action will be taken as necessary.
- Site management will regularly monitor the noise action plan below and ensure that staff are employing noise reduction techniques.

Noise monitoring will take place in response to a complaint and on 6 monthly intervals for a period of 2 years. Noise monitoring shall be carried out in accordance with the following plan.

- Attended measurements by MIOA qualified acoustician in response to the issue and thereafter at further intervals to be determined in response to findings. Measurements will be LAeq 5 minute levels over 1 hour at 1m from the nearest façade for 2 years from the first measurement.
- 2. Sound level meter at a height of 1.2 to 1.5m at 1m from the façade Cirrus Integrating Sound Level Meter (CR821B), Class 1 Group BS EN 61672-1:2003 (s/n C18361FE)) with windmuff. The meter will be calibrated before and after the measurements using a Cirrus calibrator type CR:551E (s/n 039816); the instrumentation will have been laboratory calibrated within the preceding 2 years.
- 3. Monitoring to occur during typical working hours.
- 4. Monitoring will be attended, and meteorological conditions will be logged.
- 5. Any 'pauses' for extraneous noise will be noted. Activities and events on site and off site will also be noted.
- 6. Report will note all information detailed above (electronic copy and hard copy if required)
- 7. Records of all incidents and monitoring shall be retained on-site and provided to the Waste Planning Authority and other regulatory bodies on request.

### 10. COMPLAINTS

The following procedure shall be followed for all noise complaints:

- 1. All noise and vibration complaints should be immediately directed to the Site Manager.
- 2. As soon as the complaint is received it will be recorded.
- 3. An initial response will be made and recorded. Depending on the nature of the complaint, the nature of the initial response could be to immediately cease the activity pending investigation. However, in some cases is might not be practicable to provide immediate relief. The complaint will be informed of actions taken. Contact details for the council will be available on site in case consultation with the Environmental Health Department is necessary.
- 4. Where the initial response does not address the complaint, further investigation, corrective action, and follow-up monitoring shall be undertaken as appropriate. The compliant and council will be informed of actions taken.
- 5. All actions will be recorded, and the complaint will then be closed.

#### 11. DOCUMENTATION

A construction noise and vibration management file will be established. This document will be updated to identify who managed it and the location of the physical file and any copies. The construction noise and vibration management file will contain:

- Site survey summary sheet.
- Survey reports.
- Specialist contact details.
- This Noise & Vibration Management Plan and any revisions.
- Noise and vibration survey results.
- Complaints.

## 12. CONSTRUCTION NOISE & VIBRATION INDUCTION

- 1. There are a number of isolated residential areas in close proximity to the site. To ensure there is no adverse impact, all staff will be responsible for good noise and vibration management.
- 2. When arriving at work, please drive slowly on site and keep revs to a minimum. Keep stereos off and do not slam doors.
- 3. No shouting or swearing on site, either walk over and talk to somebody or use a radio/phone.
- 4. Be careful with tools and equipment. Place them down and do not drop them. Reduce "drop heights" to a minimum.
- 5. Do not drag materials on the ground. Place them down when you arrive at the work area.
- 6. Equipment and vehicles should not be left running when not in use.

- 7. When loading trucks try not to drop material from a height. Load softer material at the bottom.
- 8. Noise enclosures should always have all doors/hatches closed when the equipment is in use.
- 9. Locate mobile equipment away from residents.
- 10. All equipment is to be well maintained.
- 11. No noisy works shall be conducted outside the permitted hours.
- 12. If you see anything/anyone making unnecessary noise and vibration, then stop it/them immediately. If the source cannot be stopped then report it to the site manager.
- 13. It is essential that good relationships are maintained with the local community. Any queries from members of the public should be responded to politely and referred to the site manager. Staff shall assist the public to contact this person. Staff shall not enter into debate or argue with members of the public.
- 14. No potentially noisy work is to be conducted until all staff involved in the task have read or been provided with the information in this plan and signed the Noise & Vibration Management Plan induction provided in Appendix 2.

## 13. SUMMARY

This Noise & Vibration Management Plan has been produced on behalf of Lloyds Metals Limited in order for the site to meet the requirements of an reassure the Environment Agency that the potential for noise produced from the onsite operations is mitigated and controlled in every possible way. The aim is to be granted an Environmental Permit to continue operations in accordance with the Environment Agency guidelines.

The Noise & Vibration Management Plan aims to control any potential sources of noise impacts on the surrounding receptors, including several that are sensitive. All possible mitigation measures have been identified for each individual source of noise on site.

The Noise & Vibration Management Plan will be reviewed annually to ensure it is up to date or following a noise incident caused by the ineffectiveness of the plan.

## APPENDIX 1 – MONITORING POSITIONS





## APPENDIX 2 - NOISE AND VIBRATION INDUCTION FORM

I HAVE READ AND UNDERSTAND FULLY MY RESPONSIBILITIES IN ASSISTING WILLSHEE'S SKIP HIRE LTD WITH IMPLEMENTING THIS NOISE AND VIBRATION PLAN:

Name	Sign	Date

## APPENDIX 3 – DRAWING REF: 200401LM101

