Noise and Vibration Management Plan

This Noise and Vibration Management Plan (NMP) forms part of Lincoln Storm's Operating Techniques and Environmental Management System (OTEMS) for its Worle Quarry Facility (document MA10). It sets out mitigations to prevent and manage noise and vibration risks associated with the site and its permitted activities (as set out in the Site Environmental Risk Assessment (Document MA11).

It must be implemented by all site personnel and management (including all contractors) and forms part of the induction and training of all site personnel.

Site details

Site name:	Lincoln Storm Limited (Worle Quarry Facility)
Site address:	Worle Quarry, Lower Kewstoke Road, Worle, Weston-Super-Mare, BS22 9LF
Operator name:	Lincoln Storm Limited
Permit number:	EPR/KB3002CW

Who this plan is for

This NMP is intended to be used by:

- All site personnel and management (including contractors) as part of the site's OTEMS.
- For public authorities and their representatives including Environment Agency Officers and North Somerset Council Officers as the basis for the regulation of any activities occurring at the site.
- Members of the public who wish to understand the approach taken to noise management and the site.

Document owner

Document author**:** Andrew Lake, Umbrella Environmental, Independent Advisor to Lincoln Storm.

Version number**:** 2.0 (as submitted with permit variation application

List of revisions

There have not yet been any variations to this Version 2.0.

Revision number	Revision authorised by	Date submitted to Environment Agency	Revision owner

Contents

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Introduction

Site description

The site is a lithium-ion battery recycling facility, including storage (R13) of lithium battery materials and product and other materials produced from R4 activity of recycling/reclamation of metals and metal compounds. Operations are described in Section 3 of this NMP.

The site is located within the disused Worle Quarry in the area of Kewstoke to the north of Weston-Super-Mare. The National Grid Reference (NGR) for the site is ST 35142 63205 and the site location is illustrated on Drawing 04 Sources, Pathways and Receptors.

The site is located in a mixed-use area. The closest residential receptors lie within Worle approximately 20m to the north with further properties to the east, south, and west. Areas of woodland border the site above the quarry to the south, east and west. The Worlebury golf course lies 40m to the west. The main access to the site is via Lower Kewstoke Road which is located adjacent to the site's northern EP boundary.

An area of Ancient Woodland called Worle Wood lies 195m to the north west of the site.

The EP boundary and site layout is shown in the accompanying site plan. The location of the site is shown in the accompanying material on sensitive receptors and location.

The site's operating hours are between 07:00 – 19:00 Monday to Friday.

1.2 Maintenance and review of the NMP

This NMP has been prepared following an independent Noise Impact Assessment prepared by SOCOTEC. That NIA is available as document MA8.

Who (job Title) is responsible for the NMP and ensuring people are trained?

The Site Technically Competent Manager(s) (TCM(s)) are responsible for this NMP and ensuring that all site and other relevant staff understand their accountabilities under it, are appropriately trained to fulfil those accountabilities and are made of, and trained as required, in implementing any updates or changes that may be made to this NMP.

Where is the plan stored?

A hard copy of this Plan is held in the Site Office, shared electronically with all staff and held on Lincoln Storm's digital systems.

When is the plan reviewed?

Improvements may be made at any time following discussion and decisions made as part of the site's management cycle (see Section 2.7 of the OTEMS (MA10)). In any event, it is reviewed quarterly and whenever any complaint is raised that may relate to noise or vibration is received, or when new fixed or mobile plant is being planned and/or commissioned.

What training have the staff on site received in order to implement the NMP?

Training in the NMP, accountabilities and implementation is provided as part of the site's training programme, as described in Section 2.2 of the OTEMS (MA10).

How often are they trained and who delivers the training?

As required by the OTEMS the training cycle, which includes training related to the NMP, is as set out in the table below.

All new site staff and contractors (and existing site staff and contractors when the plan is introduced on site)	To be trained on all site procedures
Existing site staff and contractors	To be trained on policies and procedures every 6 months (on the nearest practicable date to the 1st of the month)
Site Manager and Health, Safety and Compliance Coordinator to identify areas for refresher or new training	Every 3 months based on review of issues (or as soon as practicable after new requirements, new plant, etc.)
Site TCM and Site Manager	Annual review each year, or earlier if in a response to an incident or change in operational procedures

Training is delivered by the TCM, Site Manager and other experienced staff with appropriate competence in the relevant areas.

Who will maintain records of complaints and associated investigations due to noise on site?

Records of complaints and associated investigations are conducted and recorded as set out in Section 2.12 of the OTEMS (MA10).

Who is responsible for carrying out ongoing noise monitoring and acting on the results of this monitoring?

Noise monitoring is the responsibility of the TCM, who schedules and instructs the site manager and other site personnel to conduct required monitoring (which is conducted and recorded at least daily on working days when the site is operational.

1.2 Relevant sector guidance on which this NMP is based

This NMP has been prepared in accordance with section 2.3.10 ('Techniques for the prevention and control of noise and vibration emissions') of the Best Available Techniques (BAT) Reference Document (BREF0 on 'Waste Treatment' published in August 2018 and its specification of the contents of noise and vibration management plan within an environmental management system (EMS).

The BREF forms the basis of the Site's Best Available Techniques Assessment (BAT) set out in document MA2. This describes the relevant BAT's as follows:

BAT No	Topic	Brief Description	BAT Summary	BAT relevant to your waste installation	Additional information relating to meeting this BAT
17	Noise and vibrations	Noise and vibration management plan	In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to	No	The applicability for implementing a noise and vibration management plan is stated in the BREF document as being 'restricted to cases where a noise or vibration nuisance at sensitive receptors is expected and/or has been substantiated'. As all waste treatment activities are contained within buildings and the site only operates from 7am to 7pm Monday to Friday there is not

			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 elements listed		expected to be a risk of noise or vibration nuisance. If significant noise or vibration were to be detected, investigations would be undertaken to determine the cause and appropriate remedial action taken. This is verified by the Noise Impact Assessment (NIA) (MA8) and the accompanying Noise and Vibration Management Plan (NVMP) (MA9) supplied with the application.
18	Noise and vibrations	Reduce noise and vibration emissions	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 listed	Yes	The risk of noise impact from the site is low. Noise will be minimised through the measures described in the Environmental Risk Assessment (ERA)(MA11) in the of the OTEMS (MA10). The following measures will be implemented: All waste treatment activities are undertaken within the site; Restricted hours of operation; Quarry face surrounding the site provides 'dampening' of noise between site and receptors; Where possible, mobile plant would be located away from noise-sensitive receptors; Dropping materials from height would be avoided; All plant would be switched off when not in use; All equipment is maintained and operated in accordance with manufacturer's instructions and maintained in good working order; Speed limits are implemented for vehicles using site; Site access and operational areas are maintained and repaired to minimise emissions of noise due to uneven and poor surfacing; All site personnel are trained in the need to minimise site noise and are responsible for monitoring and reporting excessive noise when carrying out their everyday roles. The monitoring of noise levels generated by the operation is undertaken on a continuous basis by the site staff. It is the Site Manager's responsibility to identify and control any excessive noise that occurs. A record of any complaints arising regarding noise emissions and the actions taken are kept in the site diary.

The Environmental Risk Assessment (MA11) analyses noise and vibration hazards at the site as follows.

Noise and Vibration							
Identifying the harm and what could be harmed			Assessing the risk			Managing the risk	
Hazard	Receptor	Pathway	Probability of exposure	Consequence	Overall risk	Risk management	Residual risk
Potential to cause harm	What's the risk? What do I wish to protect?	Route of hazard to the receptor?	Likelihood of this contact?	Harm that can be caused?	Remaining Risk	Measures to reduce the risk?	Residual risk after the application of managerial procedures?
AR1 Reception (delivery of waste to the site) Vehicle Movements (waste delivery, movement of waste within the site and transfer of waste out of site)	Noise sensitive locations[1] Protected Nature Conservation Sites	Air, Land	High	Medium	High	Machinery is inspected and maintained regularly in line with manufacturer's recommendations. • Upon delivery at the site the waste is subject to strict waste acceptance procedures to identify, reject and/or segregate potentially non-conforming waste. This minimises the likelihood of unauthorised waste being accepted on site. All incoming loads are booked in advance with the logistics manager who records the source, category and chemistry of the load to be delivered to site.	Medium
AR2 Storage (Secure Storage)							

[1] Notes: Noise–sensitive location defined in H3 Horizontal Guidance for Noise Part 2 – Noise Assessment and Control published by the Environment Agency as - 'Any dwelling, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity, which for its proper enjoyment requires the absence of noise at nuisance levels'. Part 1 of H3 suggests that 'commercial premises may be [noise sensitive], depending upon the activities undertaken there'.

AR3 Treatment processes (Treatment consisting ofShredding, Drying and mechanical separation). AR4 Material Dispatch (Recovery/disposal)						• Daytime operations only. • See Noise and Vibration Management Plan (MA9). • The OTEMS (MA10) provides managerial procedures to prevent noise and vibration	

An independent Noise Impact Assessment (NIA) was performed by SOCOTEC and is provided as document MA8.

The conclusions of the report are summarised below:

- The survey was required to investigate if noise arising from the Lincoln Storm site is likely to have an adverse impact on the closest noise sensitive receptors (NSRs) as assessed under BS4142:2014.
- As the site was not in full production, Specific Noise measurements were taken of the processes on site running at representative output levels including the SRT plant, Generators, Gravity Separator and mobile plant. These were used to input into a CadnaA model to calculate sound levels due to site activity at the NSRs. The highest potential noise levels based on site activity were used in building the model to present a worst-case scenario.
- The measurement findings were summarised as follows:

Daytime measurements	The Observatory dB	79 Hillcott dB	Rock Cottage
Background sound level L_{A90}	37	32	33
CadnaA Calculated level from Site Activity at NSRs - L_{Aeq}	**31**	**32**	**31**
Excess of calculated level at NSR over background sound level	**-6**	**0**	**-2**

- The calculated levels as assessed under BS4142:2014 were below or one case equal to the measured background levels at each of the NSRs.
- At the two closest NSRs, 79 Hillcott and Rock Cottage, there was steady road traffic noise from Kewstoke Road which was the dominant factor in the noise climate.
- As the plant was not running at full production, there is a potential for noise levels to exceed those used modelled calculations. Vehicle movements on site could add a significant amount to the generated levels.
- The following recommendations are made to ensure that noise emissions are kept to a minimum:
  - Install acoustic enclosures around the Generators to reduce the transmission of noise
  - Ensure that Roller Shutter doors are kept shut on all buildings; the West facing Roller Shutter door on the SRT plant was reportedly always open for frequent access - install an automatic response roller door system to maintain containment of noise Acoustic screens or enclosures could also be considered for the Mill in the SRT plant
  - Acquire quieter Fork Lift Trucks running on Electric or LPG

- Ensure a management plan for vehicle noise on site is in place that limits the time spent on site and the time vehicles are stationary with engines running.

2.0 Receptors

The receptors below were used as the measurement locations for SOCOTEC's measurements, being the closest residential receptors.

2.1. Receptor List

Table 2.1. Receptor list

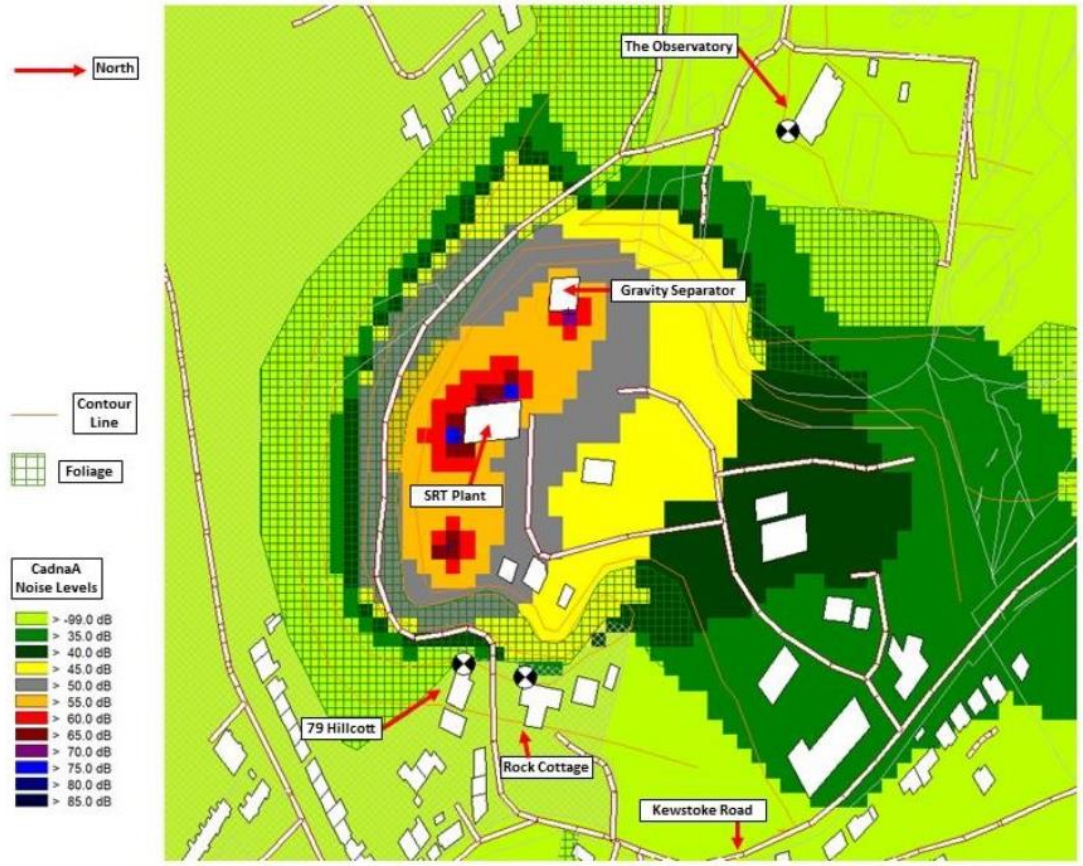
Receptor reference (A, B, C etc. Use to label Fig 2.1)	**Land use e.g. house, school, hospital, commercial**	**Direction from site (north, south, east, west)**	**Approximate distance to site boundary (m)**
The Observatory	residential	West	45 metres
Rock Cottage	residential	East	68 metres
79 Hillcott	residential	East	68 metres

The locations of these receptors is shown in the figures below.

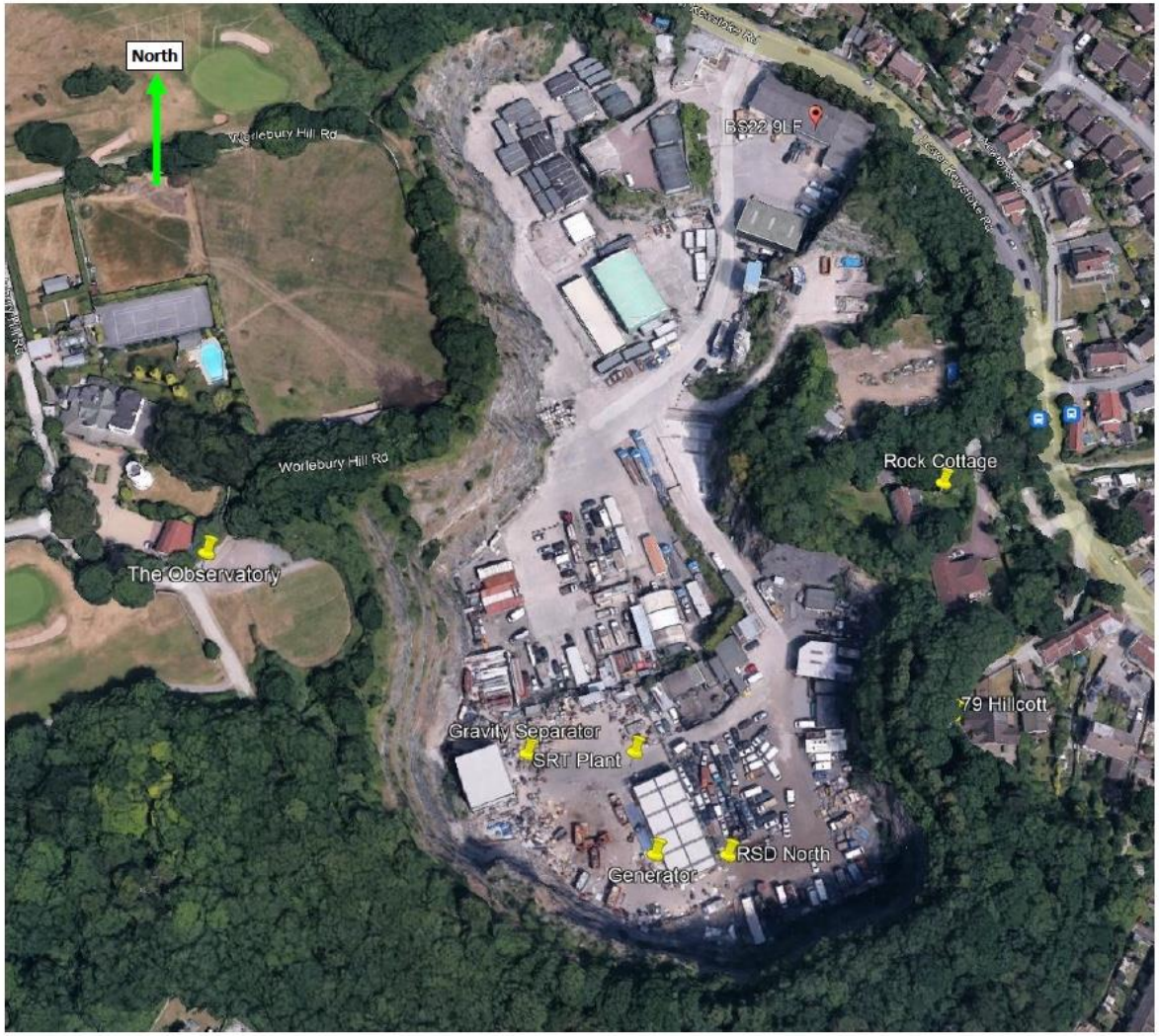
Figure 2.1 Maps of site location and receptors

The chart below shows the three sensitive receptors referenced and results of SOCOTEC's CadnaA Noise Model.

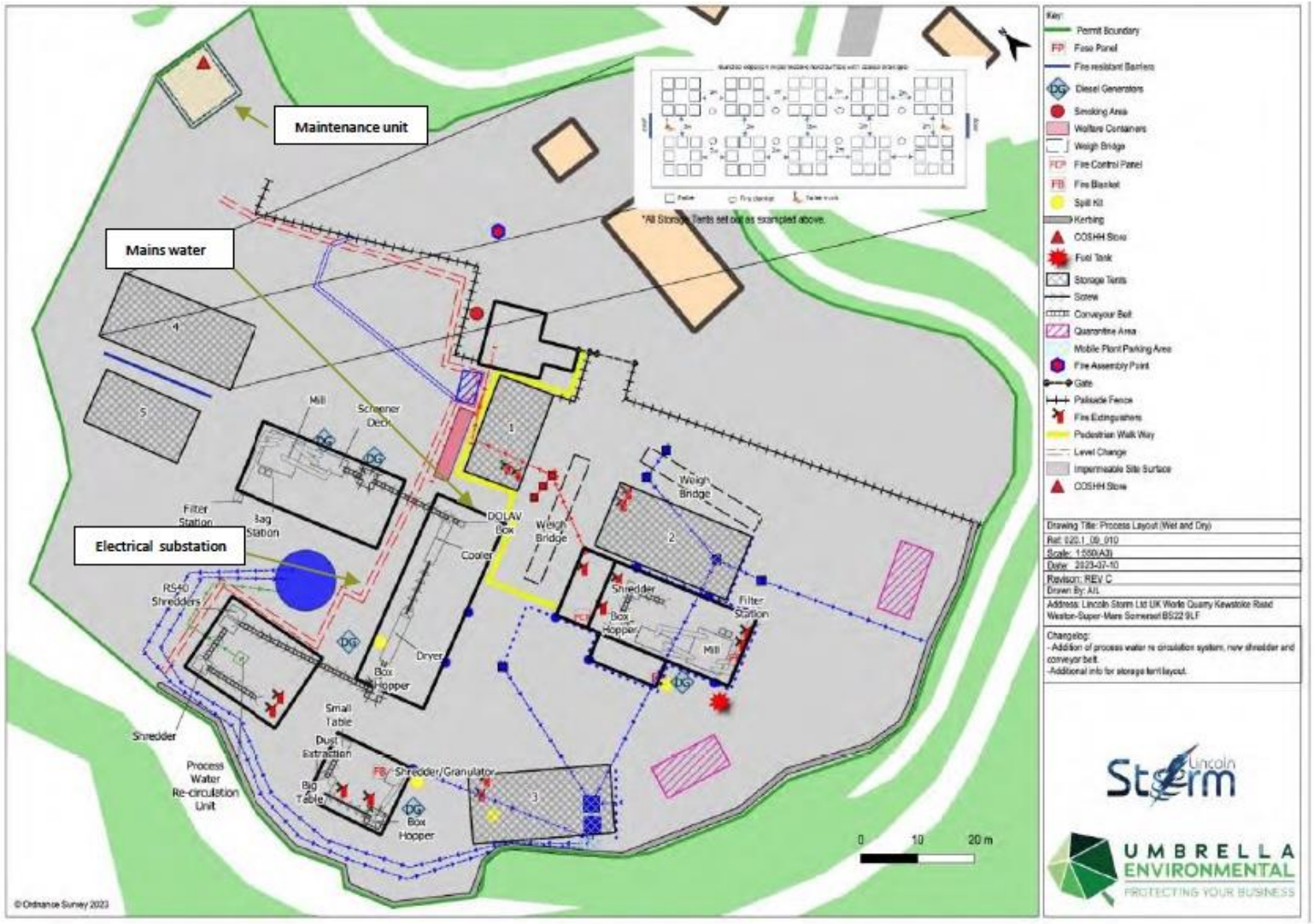
Figure B1 – CadnaA Noise Model



The chart below shows a view of the site and the receptor locations from which SOCOTEC's measurements were taken. Note that this image is historic and the site layout has changed (see plan that follows this one).



The site plan below shows the current layout as it relates to the figures above, and is used as the reference for the following sections.



3.0 Noise sources and processes

Referencing the site plan above, the regular noise sources which arise from the site's day to day operations are:

Fixed plant

- 5 diesel generators
- The dry separation line for 'dry' (i.e. uncharged) materials, comprising a shredder and mill.
- The aqueous shredding, drying and dry separation line for 'wet' (i.e. charged) materials, comprising shredders, dryer and mill.
- The aluminium and copper granule separation line.
- Container lorries arriving, loading, unloading and leaving the site (including driving on and off two weighbridges as part of the process). Reversing should not be necessary because of the route lorries take, but if it does occur reversing signals will sound from the reversing lorry. As explained in section 4.2) 'Waste Storage Plan: Waste Types and Storage', the expected incoming and outgoing loads can be expected to be 42 metric tonnes (MT) in each case. On the basis that a lorry will carry up to 20 MT, and that separate incoming and outgoing lorries are used, the expected lorry traffic would be expected to be six lorries per day.

Mobile plant

- Forklifts moving material around the permitted area.

There will be noise generated from construction work as the operation is finalised.

There will noise generated occasionally by other vehicles (eg road sweeping truck used to clean the concrete surface), and scheduled firer alarm tests.

All noise sources will only be active during the site's working hours from 0700 to 1900 on weekdays only.

3.1 Noise impact assessment (NIA) conclusion

SOCOTEC's report concluded as follows:

- Based on site observations and the results of the monitoring, it is reasonable to conclude that noise from plant and activities at the Lincoln Storm plant were not a significant factor for the environmental noise climate at the nearest noise sensitive receptors.
- **According to the BS4142 terminology, this means the likelihood of an adverse impact is low.**
- The noise from the site was detectable at 79 Hillcott as a constant low-level drone with the SRT plant running. However, the specific noise from site was soon masked by other sounds in the locations, including passing traffic which was at a similar level.
- This does have the potential to increase with other activities including vehicle movement and other plant operating such as the Gravity Separators.

As well as regular monitoring as the site becomes operational, the recommendations made by SOCOTEC will be actioned, and these are referenced in the sections below.

3.2 Noise sources

The following data was used by SOCOTEC to model the noise sources.

Table 3.2 Description of noise emitting processes

Table B3 – Specific Noise Measurements of Site Processes

Process/Location	L_{Aeq} (dB)	Distance r (m)	Directivity Q	Sound Power Level
Aksa Generator AD410 (410 kVA), no load, South	**79**	3	4	**93**
As above, West	76			
North	76			
Clark Diesel Fork lift truck, lifting & turn @2m	76			
As above run 2 @2m	**81**	2	2	**95**
SRT plant running, Open RSD to West	**79**	3	2	**96**
SRT plant, weighbridge, North	61			
SRT plant, East, towards rear near extraction motor	69			
SRT plant Open RSD, South	**81**	3	2	**98**
Gravity Separator, Fan on Max	**80**	3	4	**94**

Values highlighted in blue taken as highest readings obtained and used for the predictions

Sound Power Level (SWL) calculated using:

SWL = L + 20log(r) + 11 - 10log(Q)

3.3 Overview of noise processes and emissions

Name and type of buildings

On the plan below buildings (within which plant is visible) have a solid black border.

Moving clockwise from the gate:

- The first building contains the shredder and separation line (including mill) for dry (uncharged) materials (dry material zone). This building also contains an office and welfare area.
- The second building contains the separation equipment to separate mixed granules of copper and aluminium into the two separate metals (Al/Cu separation zone).
- The third building contains the aqueous shredding operation for wet (charged) materials (Aqueous Shredding)
- The fourth building contains the dryer for the materials shredded in the third building (Drying).
- The fifth building contains the same separation line and mill contained in the first building to separate the output of the fourth building.

There are also five storage tents (numbered on the plan).

Loading and unloading areas

Lorries enter through the gate and move clockwise to the first weighbridge, before proceeding to the area between the first and fourth buildings and tent 3. After loading or unloading has been performed, the lorry moves to the second weighbridge before exiting the site.

Routes which mobile plant take on site

Mobile plant ('forklifts') operate in all areas of the plant and are used in loading and unloading and moving material from storage areas to the processing areas and then finished product and material back to storage or, in the case of mixed aluminium and copper granules, from the first or fifth building to the second building and then on to storage.

At the end of each day, the forklifts are moved into and stored in the maintenance unit at the North end of the site.

Locations of static equipment

All static processing equipment is shown in the site plan and is in one of the five buildings. There is also a pump for the sealed drainage system, pumping from the interceptors under Tent 3 to the water storage tank (activated when the water level in the former reaches a specified level).

In addition, there are five diesel generators.

Storage areas

The storage areas are in the five tents, as described above. In the event that it is required, material may be temporarily stored in the quarantine areas shown on the plan.

Processing areas

All processing occurs in the five buildings described above.

Which activities create the most noise

Noise can be expected from the sources described above and modelled by SOCOTEC:

- 5 diesel generators
- The dry separation line for 'dry' (i.e. uncharged) materials, comprising a shredder and mill.
- The aqueous shredding, drying and dry separation line for 'wet' (i.e. charged) materials, comprising shredders, dryer and mill.
- The aluminium and copper granule separation line.
- Container lorries arriving, loading, unloading and leaving the site (including driving on and off two weighbridges as part of the process). Reversing should not be necessary because of the route lorries take, but if it does occur reversing signals will sound from the reversing lorry. As explained in section 4.2) 'Waste Storage Plan: Waste Types and Storage', the expected incoming and outgoing loads can be expected to be 42 metric tonnes (MT) in each case. On the basis that a lorry will carry up to 20 MT, and that separate incoming and outgoing lorries are used, the expected lorry traffic would be expected to be six lorries per day.
- Forklifts moving material around the permitted area.

Fixed plant and layout of equipment

As described above and shown on the site plan below.

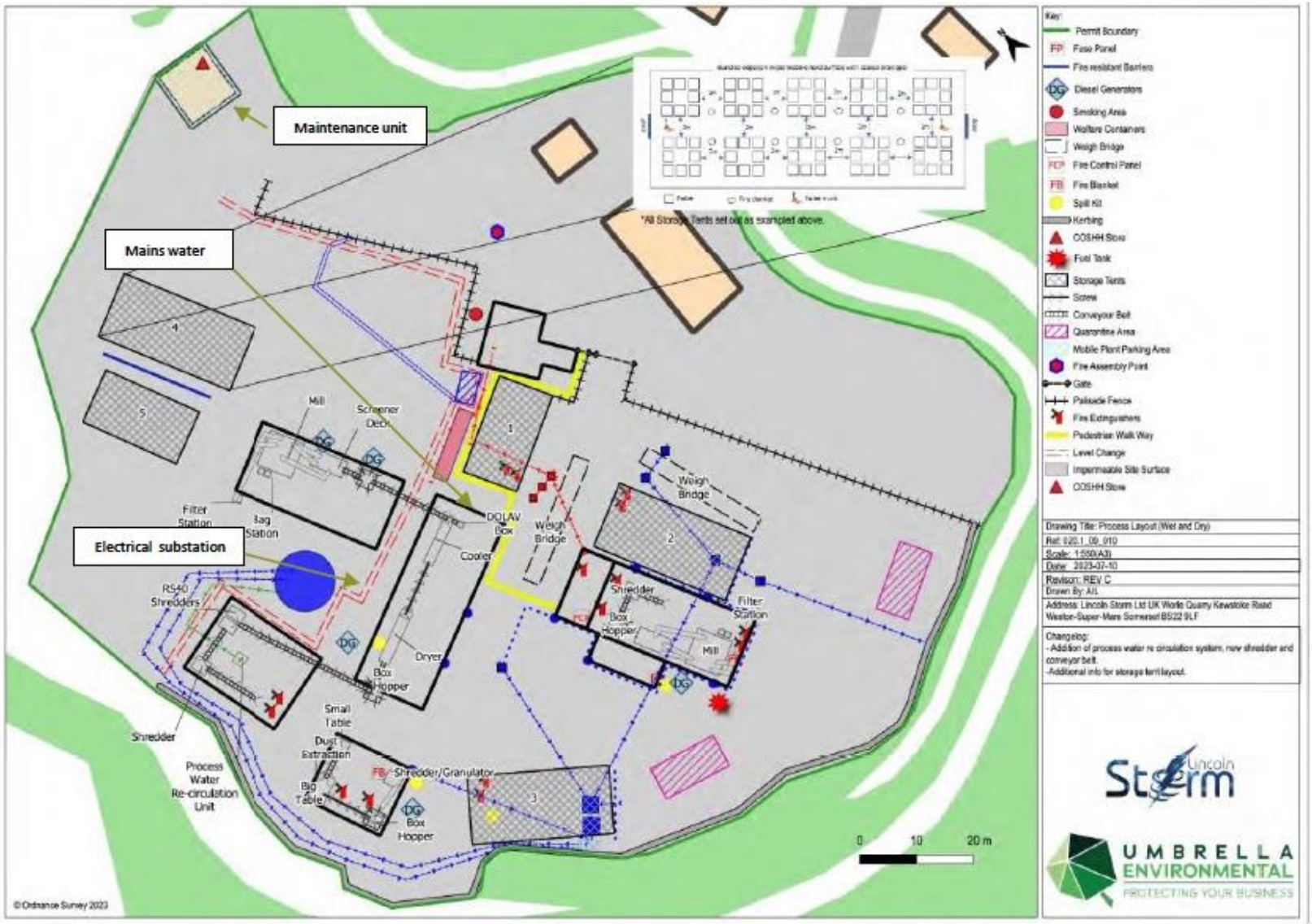
Locations of mobile plant

As described above and shown on the site plan below (all areas).

Noise emission points

All buildings described above, and mobile plant in all permitted areas.

Figure 3.3 – Site plan showing locations of noise emitting processes, with routes shown of mobile noise emitting sources



4.0 Control measures and process monitoring

4.1 Appropriate measures / Best available techniques (BAT)

Table 4.1 Actions and procedures which will be in place to achieve appropriate measures / best available techniques (BAT)

Activity which produces noise	Operational Hours / days	Control measures (Appropriate Measure / BAT)	Contribution to overall impact	Action taken if outside optimum process parameters
Diesel generators	0700 to 1900 weekdays only	*General controls:* All waste treatment activities are undertaken within the site; Restricted hours of operation; Quarry face surrounding the site provides 'dampening' of noise between site and receptors; Where possible, mobile plant would be located away from noise-sensitive receptors; Dropping materials from height would be avoided; All plant would be switched off when not in use; All equipment is maintained and operated in accordance with manufacturer's instructions and maintained in good working order; Speed limits are implemented for vehicles using site; Site access and operational areas are maintained and repaired to minimise emissions of noise due to uneven and poor surfacing; All site personnel are trained in the need to minimise site noise and are responsible for monitoring and reporting excessive noise when carrying out their everyday roles. The monitoring of noise levels generated by the operation is undertaken on a continuous basis by the site staff. It is the Site Manager's responsibility to identify and control any excessive noise that occurs. A record of any complaints arising regarding noise emissions and the actions taken are kept in the site diary. *Specific controls:* Plant switched off when not in use. Plant specific maintenance schedule adhered to. If necessary, install acoustic enclosures around the Generators to reduce the transmission of noise, and / or silencers Operator training	High to medium	Cease operation and investigate reasons for elevated sound levels.

Dry line	0700 to 1900 weekdays only	*General controls:* All waste treatment activities are undertaken within the site; Restricted hours of operation; Quarry face surrounding the site provides 'dampening' of noise between site and receptors; Where possible, mobile plant would be located away from noise-sensitive receptors; Dropping materials from height would be avoided; All plant would be switched off when not in use; All equipment is maintained and operated in accordance with manufacturer's instructions and maintained in good working order; Speed limits are implemented for vehicles using site; Site access and operational areas are maintained and repaired to minimise emissions of noise due to uneven and poor surfacing; All site personnel are trained in the need to minimise site noise and are responsible for monitoring and reporting excessive noise when carrying out their everyday roles. The monitoring of noise levels generated by the operation is undertaken on a continuous basis by the site staff. It is the Site Manager's responsibility to identify and control any excessive noise that occurs. A record of any complaints arising regarding noise emissions and the actions taken are kept in the site diary. *Specific controls:* Plant switched off when not in use. Plant specific maintenance schedule adhered to. Ensure that Roller Shutter doors are kept shut on all buildings. If necessary: (a) install an automatic response roller door system to maintain containment of noise; and (b) Acoustic screens or enclosures could also be considered for the mill. Operator training	High to medium	Cease operation and investigate reasons for elevated sound levels.
Wet line	0700 to 1900 weekdays only	*General controls:* All waste treatment activities are undertaken within the site; Restricted hours of operation; Quarry face surrounding the site provides 'dampening' of noise between site and receptors; Where possible, mobile plant would be located away from noise-sensitive receptors; Dropping materials from height would be avoided; All plant would be switched off when not in use; All equipment is maintained and operated in accordance with manufacturer's instructions and maintained in good working order; Speed limits are implemented for vehicles using site; Site access and operational areas are maintained and repaired to minimise emissions of noise due to uneven and poor surfacing; All site personnel are trained in the need to minimise site noise and are responsible for monitoring and reporting excessive noise when carrying out their everyday roles. The monitoring of noise levels generated by the operation is undertaken on a continuous basis by the site staff. It is the Site Manager's responsibility to identify and control any excessive noise that occurs. A record of any complaints arising regarding noise emissions and the actions taken are kept in the site diary. *Specific controls:* Plant switched off when not in use. Plant specific maintenance schedule adhered to. Ensure that Roller Shutter doors are kept shut on all buildings If necessary: (a) install an automatic response roller door system to maintain containment of noise; and (b) Acoustic screens or enclosures could also be considered for the mill Operator training	High to medium	Cease operation and investigate reasons for elevated sound levels.

Al/Cu separation	0700 to 1900 weekdays only	*General controls:* All waste treatment activities are undertaken within the site; Restricted hours of operation; Quarry face surrounding the site provides 'dampening' of noise between site and receptors; Where possible, mobile plant would be located away from noise-sensitive receptors; Dropping materials from height would be avoided; All plant would be switched off when not in use; All equipment is maintained and operated in accordance with manufacturer's instructions and maintained in good working order; Speed limits are implemented for vehicles using site; Site access and operational areas are maintained and repaired to minimise emissions of noise due to uneven and poor surfacing; All site personnel are trained in the need to minimise site noise and are responsible for monitoring and reporting excessive noise when carrying out their everyday roles. The monitoring of noise levels generated by the operation is undertaken on a continuous basis by the site staff. It is the Site Manager's responsibility to identify and control any excessive noise that occurs. A record of any complaints arising regarding noise emissions and the actions taken are kept in the site diary. *Specific controls:* Ensure that Roller Shutter doors are kept shut on all buildings If necessary: (a) install an automatic response roller door system to maintain containment of noise; and (b) Acoustic screens or enclosures could also be considered. Operator training	High to medium	Cease operation and investigate reasons for elevated sound levels.
Loading and unloading	0700 to 1900 weekdays only	*General controls:* All waste treatment activities are undertaken within the site; Restricted hours of operation; Quarry face surrounding the site provides 'dampening' of noise between site and receptors; Where possible, mobile plant would be located away from noise-sensitive receptors; Dropping materials from height would be avoided; All plant would be switched off when not in use; All equipment is maintained and operated in accordance with manufacturer's instructions and maintained in good working order; Speed limits are implemented for vehicles using site; Site access and operational areas are maintained and repaired to minimise emissions of noise due to uneven and poor surfacing; All site personnel are trained in the need to minimise site noise and are responsible for monitoring and reporting excessive noise when carrying out their everyday roles. The monitoring of noise levels generated by the operation is undertaken on a continuous basis by the site staff. It is the Site Manager's responsibility to identify and control any excessive noise that occurs. A record of any complaints arising regarding noise emissions and the actions taken are kept in the site diary. *Specific controls:* Adhere to speed controls (10 mph). Clear signage Ensure that drivers are aware of noise protocols. Operator training Switch off while not in use.	High to medium	Cease operation and investigate reasons for elevated sound levels.

Forklifts	0700 to 1900 weekdays only	*General controls:* All waste treatment activities are undertaken within the site; Restricted hours of operation; Quarry face surrounding the site provides 'dampening' of noise between site and receptors; Where possible, mobile plant would be located away from noise-sensitive receptors; Dropping materials from height would be avoided; All plant would be switched off when not in use; All equipment is maintained and operated in accordance with manufacturer's instructions and maintained in good working order; Speed limits are implemented for vehicles using site; Site access and operational areas are maintained and repaired to minimise emissions of noise due to uneven and poor surfacing; All site personnel are trained in the need to minimise site noise and are responsible for monitoring and reporting excessive noise when carrying out their everyday roles. The monitoring of noise levels generated by the operation is undertaken on a continuous basis by the site staff. It is the Site Manager's responsibility to identify and control any excessive noise that occurs. A record of any complaints arising regarding noise emissions and the actions taken are kept in the site diary. *Specific controls:* Adherence to speed control (10 mph). Clear signage. Following the prescribed maintenance schedule including checks at start up and at end of day. Switch off while not in use. Operator training. If necessary: acquire quieter Fork Lift Trucks running on Electric or LPG; consider noise-reducing attachments to reduce exhaust noise or noise from hydraulics.	High to medium	Cease operation and investigate reasons for elevated sound levels.

4.2 Onsite monitoring procedures

Table 4.2 Description of onsite processes which will ensure impacts do not increase on site.

Description of procedure	Procedure	When will this be carried out?	Corrective action
Replacing old / faulty equipment	Procurement of new equipment	When equipment requires replacing	Replace equipment that have sound levels which are equivalent or lower sound levels compared to existing equipment
Daily monitoring and checks, including checking noise barriers	Site Manager's site diary and daily checklist and daily sound monitoring.	Daily	Repairs, training or other corrective action as required
Maintenance schedule	as described in Section 4.8.5 of MA10 OTEMS.	Daily, weekly, monthly and annually	Repairs, training or other corrective action as required
Improvement plans	Implementation of the site's Energy Efficiency Plan, specifically relating to replacement of diesel generators with other power sources and introduction of electrically powered forklifts	Actively over the next 3 years	Amendment and replacement of processes and plant as improvement opportunities are identified.
Regularly scheduled independent monitoring	SOCOTEC commissioned	On a regular schedule of at lest every tthree months while the site is commissioned and whenever new plant is commissioned (eg additional generators	All of the above
Remote independent monitoring	SOCOTEC commissioned	Discussions underway	All of the above

4.3 Monitoring off site sound levels

Monitoring takes two forms:

- Daily monitoring (and assessment of results) as part of the site's management cycle and as described in the second row above. This involves testing with a handheld digital device / app, from the measurement positions and at a number of additional points on the bridleway that surrounds the site.
- Independent monitoring to be performed by SOCOTEC according to standard BS4142.

Figure 4.1 – plan showing locations of sound level measurement positions used to monitor sound from the site.

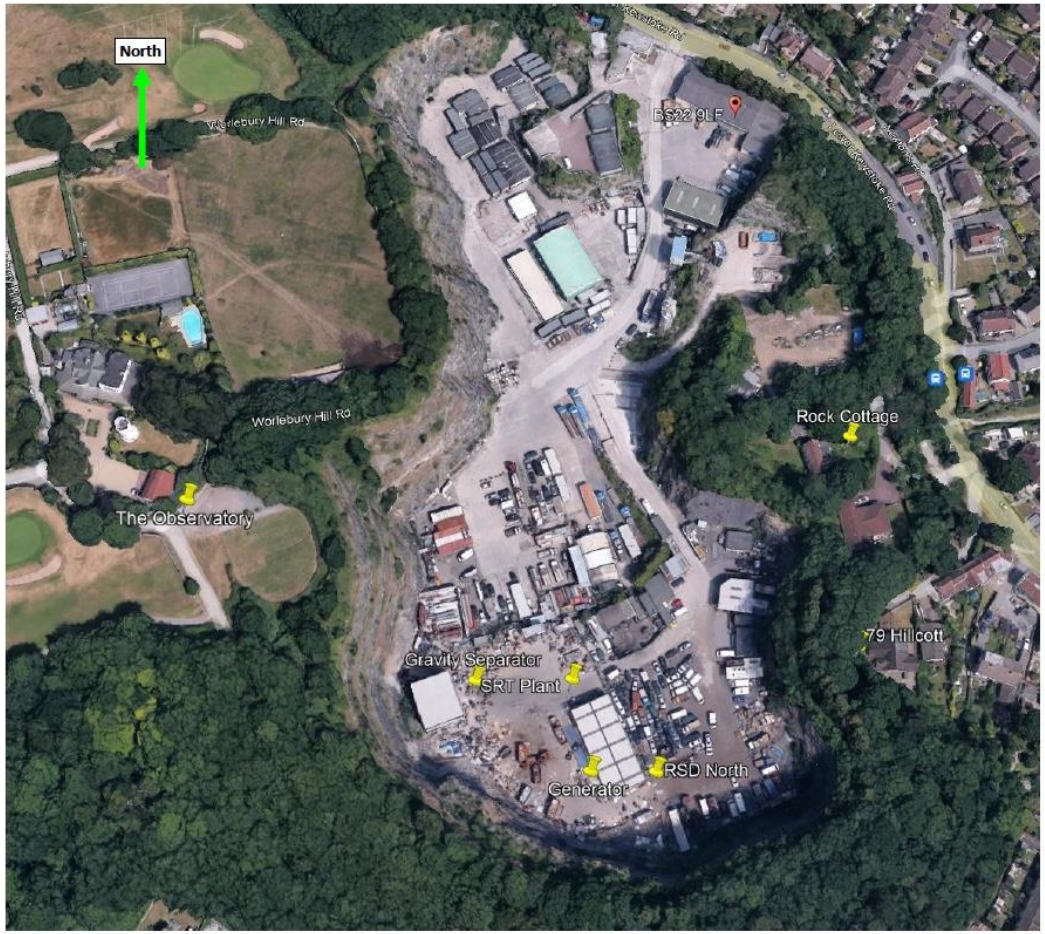


Table 4.3 Description of the sound monitoring procedures

Measurement Location	Frequency of measurement	Minimum measurement duration	Measurement period	Operating conditions on site	Expected specific sound level
Rock Cottage	Daily and every 3 months independently	5 minutes and 1 hour	Within operational hours (0700 to 1900)	Plant in operational hours	31
79 Hillcott	Daily and every 3 months independently	5 minutes and 1 hour	Within operational hours (0700 to 1900)	Plant in operational hours	32
The Observatory	Daily and every 3 months independently	5 minutes and 1 hour	Within operational hours (0700 to 1900)	Plant in operational hours	31
Within the site at all fixed plant locations and at the compass points (Northernmost, Southernmost, Easternmost and Westernmost points on the site's (permit area) perimeter	Daily and every 3 months independently	5 minutes and 1 hour	Within operational hours (0700 to 1900)	Plant in operational hours	81 DB or below (L_{Aeq})

If sound levels are found in excess these will be escalated immediately to the TCM who will initiate corrective action and investigate. If necessary, independent acoustic expertise will be obtained (eg SOCOTEC).

5.0 Complaints reporting

The complains procedure is set out below. It sets out the general procedure for receiving a complaint at Lincoln Storm's Worle Facility. The purpose of this procedure is to ensure that any site operative working on site is aware of the procedures for the correct recording of a complaint.

Scope

This procedure covers how to record and respond to a complaint.

Responsibility

All site operatives are responsible for carrying out the procedure as detailed below. Any changes required are the responsibility of the Site Manager or designated person to update and re-issue the amended procedure.

Complaints record

Any complaints received from the local public or any local receptor are to be recorded on the Complaints Record form. The complaint is also to be recorded in the site diary.

Steps

All site operatives are required to follow the steps set out below if a complaint is received at the site;

1. Record details of the complainant (including; name, address and a telephone number) if provided.
2. Make a record of the date and time the complaint was made.
3. What happened, what was the complaint actually about?
4. Was anyone else on site or other stakeholders aware of the issue and if so, who?

5. Once confirmation is made that the complaint issue relates to the site, investigate the source of the problem. Contact the Site Manager

6. Record how the site has implemented methods to ensure the issue will not cause complaint in the future.

7. Make a record of any signs of pollution. If the complaint (such as emissions to groundwater or a local watercourse) is significant, the Environment Agency will need to be contacted on 0800 807060 as soon as possible. The severity of the incident shall be determined by the Site Manager.

8. The Site Manager shall send an email to the local Environment Agency office.

9. All Complaint Record forms shall be signed and dated.

Any actions taken in response to the complaint are to be recorded on the Complaints Record form and the site diary.

On site visits, if the local Environment Agency Site Officer requests to see the site diary, all complaints should be shown.

The complaints received are to be reviewed at future site audits to ensure these complaints will be avoided in the future, and as a part of the daily and other streps of the management cycle.

Health and safety

All site operatives shall work with due regard to all relevant Health and Safety Regulations currently in existence relevant to operations on site.

The complaints form is shown at Appendix 6 (b) of MA10, the OTEMS.