

WILLIAMS PLANT HIRE LTD

WASTE TRANSFER STATION

ABERBECHAN WHARF

NEWTOWN

POWYS

SY16 3AW

DUST MANAGEMENT PLAN

Version 4.0

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1) Introduction

1.1 Background

Williams Plant Hire Ltd have been operating a waste transfer facility at Aberbechan Wharf since 2004. In addition to the permitted activities exemptions were registered for processing of aggregates and some storage under the 1994 Waste Management Regulations. Since the implementation of the latest exemption regime this has restricted site activities and the permit variation is to allow previous activities to be covered by the varied permit. Williams Plant Hire Ltd intends to produce secondary aggregates under the WRAP Protocol. Aggregate is processed by crushing and screening and tested to show compliance with Highways Specifications and sold for use off site as a product. An application has been made for an environmental permit variation to allow excavated waste materials to be brought to the site for processing under the WRAP protocol to produce secondary aggregates and soils.

The site is located in a rural location where the waste arisings will be limited due to the limited amount of development that takes place nearby. There is limited storage available for aggregates and soils and processing operations will only be carried out under suitable conditions and when there is enough material to process. Processing is not likely to be carried out more than 6 times per year.

This plan covers the reception of wastes, stockpiling, processing and loading of materials leaving the site and will be reviewed on a regular basis and at least once per year. If improvements can be introduced to working practices then they will be incorporated into the plan.

1.2 Methodology

This application is to vary the existing permit to increase the area and allow for the storage and processing of specified wastes on hardstanding. A bespoke Locational Risk Assessment has concluded that dust could be a low risk for the environmental/ecological receptors and human receptors. A specific Habitats Risk Assessment was also submitted with this variation application and concluded that, provided the site is operated in accordance with the Environmental Management System, the proposed facility will have no significant impact on the ecological receptor site discussed in this risk assessment.

Therefore, due to likely impact, the tonnages which this site is likely to accept and the frequency of crushing/screening operations it is considered to be appropriate to undertake a qualitative assessment to identify those areas of concern regarding dust and to manage those areas.

1.3 Responsibilities

The site is operated by Williams Plant Hire Ltd and Keith Williams will be responsible for managing the day to day operations and compliance. In his absence Andrew Williams or a nominated person who is fully conversant with

the EMS will direct operations. Keith Williams is responsible for any review of the dust management plan and he will ensure that there are sufficient resources and staff to implement the measures detailed in the Dust Management Plan. The actual dust monitoring and day to day implementation of the plan's mitigation and control measures may be undertaken by Keith Williams, Andrew Williams or any operational staff who have been suitable trained in the role they have been asked to undertake (for example monitoring of wind speed and direction or dust suppression measures).

1.4 Site Location

Drawing CEC/WPH/01 shows the location of the site and the sensitive environmental receptors.

1.5 Sensitive Receptors

The following table shows the distances to the nearest sensitive receptors from the boundary of the site

Table 1

Feature	Distance (approximate) metres	Direction From the Site to Receptor
Montgomery canal SPA and SSSI	4m approx. 25-50m from the processing area	NNW
River Severn	10m	E
Houses at Aberbechan	80m to 190	W and WSW

The aim of this plan is to suppress emissions at source and so prevent dust emissions affecting receptors.

1.6 Hours of Operation

In order to reduce the length of time that sensitive receptors may be exposed to dust the site has restricted opening hours.

The site will not be operational every day as it depends on suitable wastes being available for processing. Processing will only be carried out when there is sufficient material to process. Operating hours will be restricted to

Monday to Friday	08.00 - 17.30
Saturday	08.30 – 12.30
Sunday	No Operations

1.7 Expected Operational Use

Whilst vehicles will be delivering and taking away materials most days it is only expected that the crushing operations will be undertaken 6 times per year with a duration of 1 to 2 days, processing 500 to 1000 tonnes at a time.

Screening may be more frequent at 2 to 3 days per month. Shredding will be undertaken around 4 times per year with a duration of less than 1 day.

2) Potential Sources of Dust, Pathways and Receptors

2.1 Sources of Dust

Dust is particulate matter between 1 and 75 micrograms. Once airborne dust is dispersed by air currents and can be deposited over a wide area, but generally most of the dust is deposited within 100m of the point of emission.

Dust can also be generated by the action of wind on surfaces and through the use of plant for crushing, screening, plant movement, vehicle tipping and the loading of vehicles and from stockpiled materials.

At Williams Plant Hire Ltd the significant potential sources of dust as identified by the risk assessment are :-

Crushing and screening operations

Stockpiles

Sorting operations within the building

Shredding

Site Roads

2.2 Wind Direction - Pathway

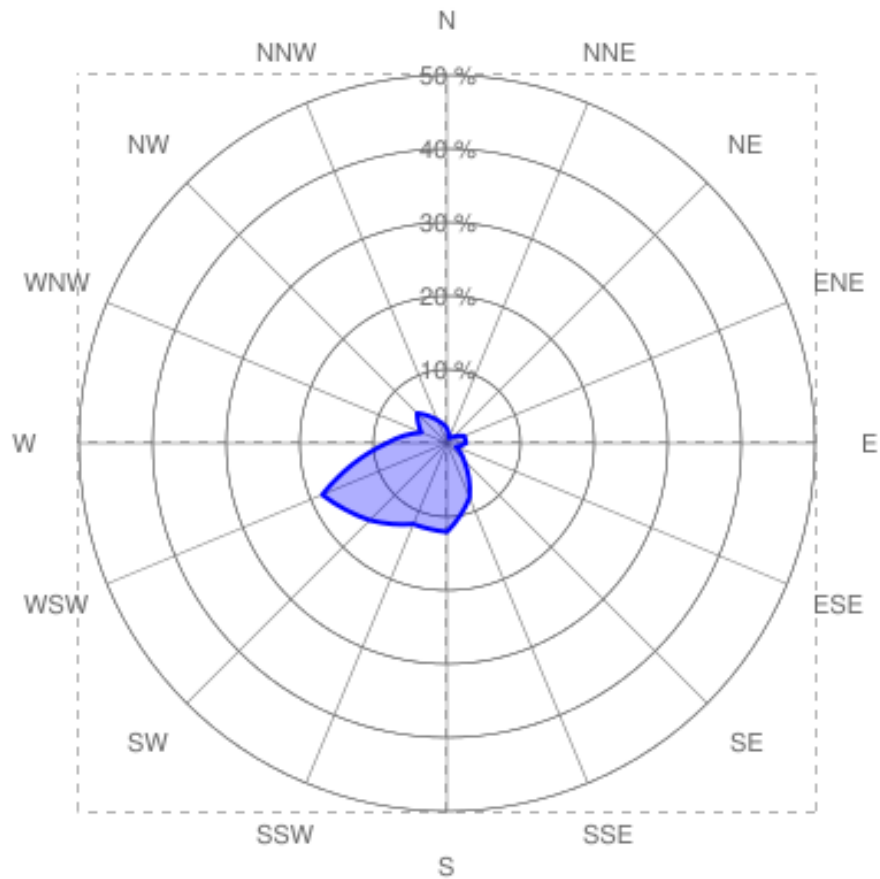
The pathway for dust transport is airborne. The prevailing wind is from the West South West but can come from any direction. A windsock is in position so that staff can see which way the wind is blowing (for monitoring purposes) and can also use it to help assess wind strength to inform decision making regarding taking appropriate action such as not commencing or suspending certain operations or applying dust suppression measures depending on the wind speed (see section 2.3).

The windrose for the site location is shown as Figure 1 and winds from various directions are discussed in relation to the areas that could be impacted from a particular direction and the site features that will reduce the potential for dust to leave the site.

The site itself is protected from the wind from easterly directions due to the mature deciduous trees along the banks of the River Severn and from the North West by mature evergreen hedging along the Montgomery Canal. The trees and hedging are all higher than the highest stockpile of waste on site. Of course, the deciduous trees will act less as a windbreak during the winter months. It should be noted, however, that the use of the trees as a windbreak is a passive dust mitigation measure and this Dust Management Plan relies primarily upon active dust control measures outlined in the plan. The trees will simply add to the already comprehensive active measures in place.

The site buildings to the South of the Montgomery Canal also act as a windbreak to winds from the West and North West, see Table 2 below.

Figure 1 SHAWBURY WEATHER STATION WIND ROSE
Drawing no CEC/WPH/04



Direction	Percentage
E	2.58
ENE	2.55
ESE	1.33
N	2.07
NE	1.25
NNE	0.76
NNW	3.39
NW	5.75
S	12.06
SE	3.24
SSE	8.02
SSW	11.9
SW	14.82
W	8.17
WNW	3.77
WSW	18.34

Wind direction and potential receptors
Table 2

Wind From Direction	% of time	Downwind receptor	Distance (m) to receptor boundary from processing and stockpile area	Protection from wind
N	2.07	Land to the South of the permit boundary	25	Upwind tree belt and partial protection from site buildings
NNE	0.76	Land to the South of the permit boundary	30	Upwind tree belt
NE	1.25	Land to the South of the permit boundary	35	Upwind tree belt
ENE	2.55	Plant Hire Yard	50	Upwind tree belt
E	2.58	Plant Hire yard and Aberbechan Housing	55	Upwind tree belt
ESE	1.33	Plant Hire Yard, Montgomery canal	45	Upwind tree belt. Downwind buildings and trees protect the Montgomery Canal
SE	3.24	Montgomery canal	30	Upwind tree belt. Downwind buildings and trees protect the Montgomery Canal
SSE	8.02	Montgomery canal	30	Upwind tree belt. Downwind buildings and trees protect the Montgomery Canal
S	12.06	Montgomery canal	40	Upwind tree belt. Downwind buildings and trees protect the Montgomery Canal
SSW	11.9	Montgomery canal	65	Downwind tree belt

SW	14.82	River Severn	10	Downwind tree belt
WSW	18.34	River Severn	10	Downwind tree belt
W	8.17	River Severn	10	Plant Hire yard buildings, upwind tree belt and downwind tree belt
WNW	3.77	River Severn	10	Plant Hire yard buildings, upwind tree belt and downwind tree belt
NW	5.75	River Severn	15	Plant Hire yard buildings, upwind tree belt and downwind tree belt
NNW	3.39	River Severn, land to South of permit boundary	20	Plant Hire yard/ waste storage/ processing buildings, upwind tree belt and downwind tree belt

Note the percentage missing is due to no wind.

The distances above relate to the distance from the proposed permit boundary to the edge of the designated receptors as shown on Plan no CEC/WPH/01.

2.3 Acceptable Wind Speed for Waste Processing

As waste processing (crushing and screening) will only take place sporadically and generally less than 6 times per year, the operator is able to choose days when the conditions are unlikely to cause dust emissions to leave the site and affect the local sensitive receptors.

Prior to commencing crushing and screening operations, the wind direction and strength will be recorded using the Beaufort Scale. This will be done by Keith Williams, Andrew Williams or any operational staff who have been suitable trained in the role they have been asked to undertake (for example monitoring of wind speed and direction or dust suppression measures). A wind sock is in position so that staff can see which way the wind is blowing and also to assist with an assessment of the wind strength with reference to the Beaufort scale. Wind direction will be monitored to simply provide information should there be any complaints relating to dust. By monitoring the wind speed staff can take appropriate action i.e.

- not commencing crushing and/or screening operations if the wind speed is too high (see below) and/or;
- damp down waste prior to crushing and/or screening and/or;
- use the misting on the crusher/screener;
- damping down the yard;
- sweeping and road/yard.

In making the decision whether to start crushing/screening operations the following guidelines will be used.

When the winds are Force 2 or below it will be acceptable for waste processing to start.

If the wind strength is Force 3 and it is raining it will be acceptable for waste processing to start. However heavy rain and strong winds do not make ideal conditions for processing aggregates so if the waste is too wet processing will not take place.

If the wind strength is Force 3 or above and it is not raining no waste processing will take place.

Once processing has started if visible dust is being generated by the process and is being moved away from the processing area then dust suppression measures shall be deployed. What dust suppression measures will be used depends upon the source of the dust emissions for example are they from the crusher/screener ? If so deploy the misting on the crusher and screener. Are they from the handling of the waste material ? If so damp down the waste material before it is loaded. If it is from the stockpile damp down the stockpile.

The aim is always to minimize dust generation at source.

If dust generation cannot be contained and dust is still being blown from the processing area at the site then crushing/screening will stop. This action takes the critical monitoring point away from the boundary of the site and to the processing area. This, along with the other control measures, should ensure that the risk of invisible dust leaving the site boundary is Very Low.

During operation the wind strength and direction shall be monitored by site staff by reference to the Beaufort Scale (see SOP 10, SOP 6 and QA12 daily check sheet – see Appendix 1) and if the wind strength increases to above Force 3 if raining or Force 2 if not raining, then processing shall be stopped.

All staff carry out waste processing will be trained, through toolbox talks, on how to use the wind sock to monitor wind direction and how to use it to assist in assessing with strength and how to record this data. They will be taught how to use the Beaufort Scale and how this relates to the look of the wind sock as well as other indicators such as nearby trees as follows :

THE BEAUFORT SCALE

Force	Mph	Description	Effects on Land
0	0	Calm	Smoke rises vertically
1	1-3	Light Air	Smoke drifts in wind
2	4-7	Light breeze	Leaves rustle, wind felt on face
3	8-12	Gentle breeze	Small twigs in constant motion, light flags extended
4	13-18	Moderate wind	Dust leaves and loose paper raised, small branches move
5	19-24	Fresh wind	Small trees sway
6	25-31	Strong wind	Large branches move, difficult to use umbrellas
7	32-38	V Strong wind	Whole trees in motion
8	39-46	Gale	Twigs break off trees, difficult to walk
9	47-54	Severe gale	Chimney pots and slates removed
10	55-63	Storm	Trees uprooted, structural damage
11	64-72	Severe storm	Widespread damage
12	>73	Hurricane	Widespread damage, (rare)

The Beaufort scale is a simple way of assessing wind speed using visual assessment of the environment. Force 0 and 1 windspeeds will not, at this site, be assessed by smoke rising unless there is visible smoke from a house chimney for example from outside the site. Instead, on a calm day, the assessment will be based upon a lack of the indicators for Force 2 and above ie no wind on the face and no rustling of leaves. The other descriptions are self-explanatory. The windsock will also be used to assist in the assessment of wind strength as follows :



Force 2 Approximately 4mph



Force 3 Approximately 8mph



Force 3 upper limit Approximately 12mph



Force 4 Approximately 16mph



Force 5 Approximately 20mph

Staff will record the wind strength and direction on the daily inspection sheet, along with when the process is stopped due to changing weather.

Staff will be trained at induction (ie when they commence with Williams Plant Hire Ltd and work at the transfer station) and will receive general environmental awareness training as well as specific training in the requirements of the Dust Management Plan specific to their role. Tool box training will be undertaken as least annually to ensure that staff continue to be aware of the requirements of the Dust Management Plan. If any dust related incidents occur during the year a review of the Dust Management Plan will be undertaken and will include obtaining staff feedback of the incident followed by a tool box talk on the reviewed Dust Management Plan.

2.4 Impacts from Dust

Dusts generated on the site could potentially impact the sensitive sites through nutrient enrichment, smothering, and fine sediment in the watercourse.

Waste Types to be Accepted For processing outside the Buildings

Waste types	
Exclusions Wastes having any of the following characteristics shall not be accepted: • Consisting solely or mainly of dusts, powders or loose fibres • Hazardous wastes • Wastes in liquid form	
Waste Code	Description
01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
10	WASTES FROM THERMAL PROCESSES
10 11	wastes from manufacture of glass and glass products
10 11 12	clean glass other than those mentioned in 10 11 11
10 12	wastes from manufacture of ceramic goods, brick, stiles and construction products
10 12 08	waste ceramics, bricks, tiles and construction products(after thermal processing)
10 13	wastes from manufacture of cement, lime and plaster products and articles and products made from them
10 13 14	waste concrete only
15	WASTE PACKAGING
15 01	packaging
15 01 07	clean glass only
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 01	concrete, bricks, tiles and ceramics
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	wood, glass and plastic
17 02 02	clean glass only
17 03	bituminous mixtures, coal tar and tarred products
17 03 02	road base and road planings (other than those containing coal tar) only
17 05	soil (including excavated soil from contaminated sites) stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 08	track ballast other than those mentioned in 17 05 07
17 08	gypsum based construction material
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION / INDUSTRIAL WASTE
19 12	wastes from the mechanical treatment of wastes
19 12 05	clean glass only
19 12 09	minerals (for example sand, stones)
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS

20 01	separately collected fractions
20 01 02	clean glass only
20 02	garden and park wastes
20 02 02	soil and stones

Except for waste soils containing over 3% TOC (ie topsoils), dust from the wastes accepted could not cause enrichment. With the dust control measures outlined in this Plan dust should not leave the site boundary. If it did it would be in such low quantities that any potential risk of enrichment would be Very Low.

Dust could potentially result in fine sediment in watercourses and smothering could potentially result from airborne dust falling onto watercourses, ponds or land. As this plan is designed to control dust emissions at source and so reduce the risk of dust emissions leaving the site boundary to Very Low this should not be a significant risk.

3) Dust Management Systems

3.1 Dust Assessment and Control Measures

Dust can potentially be generated through a number of operations at the site and this plan deals with ways to minimize dust generation and to prevent dust generated from impacting on the local environment.

The dust management system is to reduce the generation of dusts at source through good working practice and to apply dust suppression when required. Dust suppression will be water based and the site relies on a mains water supply to achieve this. Consideration is being given to collecting roofwater from adjacent buildings and this may be used as a water source in the future.

3.2 Waste Processing Operations

To produce a range of aggregate materials the imported waste materials will either need to be screened to specific sizes or crushed and screened. Both crushing and screening operations have the potential to generate dusts.

Crushing and screening operations will only be carried out in suitable weather conditions as detailed in section 2.3.

For waste sorting operations within the building good practice is used to load the trommel using a low dropping height onto the conveyor and the small amounts of dust produced are protected from wind by the building walls.

Shredding will be carried out within the building in suitable weather conditions (as there is the protection of the building wind speed Force 3 or below will be considered suitable weather conditions).

3.3 Crushing.

A crusher with a mobile plant permit will be hired in when required. The crusher will have a factory fitted dust suppression system. The dust is suppressed at the critical points by a fine water spray. This system will reduce the amount of dust escaping from the plant to a minimum. The dust suppression system will be deployed depending upon the moisture content of the material being crushed and the likelihood of dust generation due to the weather (see section 2.3). Too much water within the waste, by the application of excessive water, can result in water run off and waste which cannot be crushed as it is too wet.

Dust can also be generated when loading the crusher and all staff will be instructed to load the plant in a careful manner using the minimum drop possible from the excavator loading the material into the hopper and not overloading the bucket which can result in materials being dropped.

The overriding rule is that crushing and screening operations will only be carried out in suitable weather conditions as detailed in section 2.3. This should ensure that dust emissions are reduced at source and there is a Very Low risk of dust emissions leaving the boundary of the site. Nevertheless, if it is considered that loading operations will, due either to dry conditions and/or wind speed, result in unacceptable dust emissions consideration will be given to damping down waste material with fine water spray before loading the crusher.

Site management or the plant operative who has been suitably trained, will decide whether water dust suppression is needed, this assessment will consider the weather conditions as outlined in section 2.3 and the nature of material being processed and the monitoring detailed in section 3.10. As the crushing activities are being undertaken this assessment will be under constant, dynamic review and dust suppression measures can be deployed if and when needed as conditions change.

3.4 Screening

The screen will be loaded carefully and not overloaded as this can cause additional dust to be generated. Staff will be suitably training to ensure they comply with this method.

The overriding rule is that crushing and screening operations will only be carried out in suitable weather conditions as detailed in section 2.3. This should ensure that dust emissions are reduced at source and there is a Very Low risk of dust emissions leaving the boundary of the site. Nevertheless, if it is considered that screening and screener loading operations will, due either to dry conditions and/or wind speed, result in unacceptable dust emissions consideration will be given to damping down waste material with fine water spray before loading the screener.

Site management or the plant operative who has been suitably trained, will decide whether water dust suppression is needed, this assessment will consider the weather conditions as outlined in section 2.3 and the material

being processed and the monitoring detailed in section 3.10. As the screening activities are being undertaken this assessment will be under constant, dynamic review and dust suppression measures can be deployed if and when needed as conditions change.

3.5 Shredding

Shredding operations may be carried out to reduce the bulk of some materials including wood and green waste. As only low volumes of these waste can be stored at any one time, shredding operations will be short duration events. No high speed shredding operations will be carried out and the plant used will be much smaller than that used in large wood/ green waste operations due to the low quantities being processed. Dust generation will be kept to a minimum by not overloading the shredder and turning off the plant when it is not being operated. Dust suppression sprays over the shredding hopper will be deployed if necessary, depending upon the moisture content of the material being shredded and the likelihood of dust generation. Too much water within the waste by excessive dust suppression can result in water run off and waste which cannot be shredded as it is too wet.

Site management or the plant operative who has been suitably trained, will decide whether water dust suppression is needed, this assessment will consider the weather conditions as outlined in section 2.3 and the material being processed and the monitoring detailed in section 3.10. As the shredding activities are being undertaken this assessment will be under constant, dynamic review and dust suppression measures can be deployed if and when needed as conditions change.

3.6 Site Plant and Vehicle Movements

Dust can be generated in dry conditions from mud on the site surfaces by the movement of vehicles and site plant. All plant and vehicles have upward facing exhausts in order to prevent dust being generated from exhaust emissions being directed at the ground. If necessary, fine water spray will be used to suppress dust on hardstanding and road areas.

The decision to use dust suppression will consider the weather conditions as outlined in section 2.3, the condition of the site, access road and highway outside the site and the monitoring undertaken in accordance with section 3.10 below. The decision will be made by site management or a site operative who has been suitably trained.

There is a water bowser on site which can be used for this purpose and there is mains water on site which can be used to fill the bowser. There is also an in house road sweeper which can be used on site to clean the access road and site areas. Due to the availability of the in house road sweeper and the long access road to the permitted site (which helps to prevent mud reaching the highway), it has not been considered necessary to install a wheelwash on site. If the access road or highway need to be cleaned, for any reason, then the in house road sweeper will be used.

3.7 Vehicle Unloading

Vehicles arriving at the site will be subjected to the Waste Acceptance Procedures within the EMS and any loads which are not suitable for the site will be rejected. Any loads of dusts and powders will be rejected upon arrival at the site. All loads should be sheeted on arrival.

All loads being tipped will be supervised by site staff and the driver instructed to tip the load slowly with the minimum amount of drop to the ground to reduce dust generation. Any waste arriving in skips will be tipped slowly to reduce the chance of dust being generated. If necessary, fine water spray will be used to suppress dust.

Site management or the plant operative who has been suitably trained, will decide whether water dust suppression is needed, this assessment will consider the weather conditions in accordance with section 2.3, the monitoring detailed in section 3.10 and the material being unloaded. As the unloading activities are being undertaken this assessment will be under constant, dynamic review and dust suppression measures can be deployed if and when needed as conditions change.

3.8 Vehicle Loading

Processed aggregates and soils/ subsoils will be loaded onto vehicles with an excavator, into the tipper body using the minimum drop required to prevent dust generation. All vehicles will be sheeted before leaving the site. If necessary, fine water spray will be used to suppress dust.

Site management or the plant operative who has been suitably trained, will decide whether water dust suppression is needed, this assessment will consider the weather conditions in accordance with section 2.3, the monitoring detailed in section 3.10 and the material being unloaded. As the loading activities are being undertaken this assessment will be under constant, dynamic review and dust suppression measures can be deployed if and when needed as conditions change.

3.9 Stockpiles

If visible dust is being generated from a stockpile, dust emissions will be controlled by water sprays and water spray will be deployed using an on site bowser.

The decision to use dust suppression is based upon the monitoring undertaken in accordance with section 3.10, the weather conditions and the condition of the site and will be made by site management or a site operative who has been suitably trained.

Non operational hours

If at the end of a working day, before any period of time when the site is closed, or if there is an ongoing problem with dust emissions, the site's management will ensure that sufficient resources (staff and equipment) is available on an ongoing basis to ensure that the dust emissions are controlled. This could either be by having staff on site, or checking the site regularly during non operational hours, or by ensuring the sources of dust are covered, or stockpiles are damped down before the site is closed (this will create a crust on the stockpiles which will help to stop dust becoming airborne from the stockpiles).

CCTV is present on site and images of the site can be seen on the owner and manager's mobile phone. The manager is therefore able to monitor the site out of hours and if there is a visible problem with dust can arrange for resources (operatives and plant) to be made available on site to suppress the dust with water sprays.

The stockpiles will be located in the area shown on Plan no CEC/WPH/02.

3.10 Monitoring and Recording

Site staff who are supervising individual waste handling/processing operations shall, during the carrying out of those operations, undertake ongoing visual monitoring of aerial emissions.

In addition, there will be a daily inspection procedure and record (SOP's No. 10, No.6 and QA12 in the Environmental Management System – see Appendix 1) to ensure that the correct dust management methods are being used for the weather conditions at the time. If the weather conditions change then operations will be reviewed, and changes made if needed.

On detection or notification of visible aerial emissions, immediate action shall be taken to suppress the dust emissions. If the dust emissions cannot be suppressed and they are being blown from the processing area the waste handling operations which are giving rise to the emissions will be stopped until such time as either the weather conditions allow the activities to restart or the dust suppression can be effective.

The incident and the remedial action shall be recorded in accordance with the EMS.

Table 3 Summary of Dust Control Measures

Area	Control Measures
Site processing – screening and crushing	Control of operations in accordance with 2.3 above ie no processing in windy conditions. Dust suppression with water if needed.
Shredding	In the building which will reduce the escape of airborne dusts. Dust suppression with water if needed.
Site Surfaces and Roads	Site roads will be damped down with a fine spray in dusty conditions and cleaned if necessary.
Plant and Equipment Outside of Buildings	Plant will be brushed down when needed. Only during wet or damp weather can cleaning be by using compressed air.
Outside Storage Piles	In windy conditions the surface of the stockpiles will be damped down if needed to reduce the potential for windblown dusts. Out of hours monitoring to ensure damping down is undertaken if needed.
Vehicle Unloading	The majority of vehicles delivering waste will be tipper lorries. For vehicles that tip waste drivers are instructed to tip slowly to reduce dust emissions. Dust suppression with water if needed.
Vehicle Loading	Loading of vehicles shall be done by site staff and the minimum drop from the excavator will be used to minimize dust generation. All vehicles leaving the site will be sheeted. Dust suppression with water if needed.
Site Management	There is a daily inspection procedure to ensure that the correct methods are being used for the weather conditions at the time. If the conditions change then this will be reviewed and changes made. All the procedures will be reviewed and where improvements are identified then the procedures shall be updated and a record kept of the changes.

4) Site Operations

A series of Standard Operating Procedures (SOPs) are in place for all operations on the site and SOP No 6 Daily Inspections and SOP No 10 Dust management have been produced to instruct staff of the requirements to reduce any impact from the site to within the permit conditions.

These procedures are included in the site EMS

The EMS also contains a section on staff training needs and as a result of this all staff will be trained on the implementation of the dust management plan.

5) Dust Complaints

In the event of any complaint being received then SOP14 - Complaints, shall be followed by using the form QA/06 in the EMS.

If dust complaints are received from 2 or more different complainants within a working day then operations on site will cease until the matter can be investigated and responded to in accordance with SOP 14 and SOP 10.

In the event that the complaint is upheld site operations and procedures shall be reviewed and any changes or operational improvements shall be made to reduce the risk of dust emissions in the future.

6) Dust Management Plan Reviews

The Dust Management Plan will be reviewed on a regular basis, in response to any dust complaint or any dust related incident, and, in any event, at least once per year.

In accordance with section 5 in the event that any dust complaint is upheld site operations and procedures shall be reviewed and any changes or operational improvements shall be made and incorporated into the Dust Management Plan.

If any dust related incidents/complaints occur during the year a review of the Dust Management Plan will be undertaken and will include obtaining staff feedback of the incident followed by a tool box talk on the reviewed Dust Management Plan

At any of the reviews times, the effectiveness of the mitigation measures will be reviewed and if improvements can be introduced to working practices then they will be incorporated into the plan.

SITE INSPECTION

Responsibilities

The site management has overall responsibility for the site operations. The site manager or his nominated deputy shall be responsible for implementing the procedure.

Purpose

The site inspection is to be carried out by the Site Manager or Site Foreman or any other member of staff who has been trained in the requirements of the inspection process. The inspection is to ensure that the site permit is being complied with. Any problems arising from the inspection shall be dealt with to ensure compliance. Site Inspection forms shall be filled out each operational day and these records kept in the site office. Any issues requiring works to be done shall be recorded and when the works are completed this shall also be noted on the form for that day.

When the site has completed work for the day the end of day checks shall be carried out and recorded.

Other Relevant Documents

- Environmental Permit
- Fire Prevention Plan

Instructions

The following items will be inspected in accordance with the site check sheet QA12. Inspection results and any remedial actions will be noted on the site check sheet. In addition to the routine checking it is important to identify any problems which arise through the working day and notify the site manager at once.

- Effective storage of waste and within the limits set in the Fire Prevention Plan
- Wastes are checked throughout the day for evidence of fire or smouldering
- Site plant for leaks of fuel, oils or hydraulic fluids
- Condition of the site access road checked and maintained so that the road is free of excessive mud or dust
- Visible dust emissions from the active areas of the site and damp down if necessary
- Build up of dust on site surfaces and on plant and equipment
- Correct deployment of the misting systems
- Excessive noise

STANDARD OPERATING PROCEDURE No 06

- Odours
- Any spillages or leakage
- Surface water run off – any problems with drainage system including interceptor and the capacity of the sealed sumps
- Condition of the perimeter fence and gates
- Evidence of pests and vermin
- General cleanliness of site– instruct to clean/litter pick as needed

DUST MANAGEMENT

Responsibilities

The management has overall responsibility for the site operations. The site manager or his nominated deputy shall be responsible for implementing the procedure and in the event of additional resources being needed or the site not being able to continue working then management will need to be consulted before work re commences. Operational staff are responsible for reporting any problems with equipment or changes in the weather conditions which could result in the release of dusts during the working day to the site management.

Purpose

Dusts can cause impacts on surrounding properties and environmental receptors and needs to be controlled under the Environmental Permit. Failure to control dusts is a permit breach and could cause nuisances to people and property away from the site and to the environmental receptors of the River Severn and the Montgomery Canal. Dust issues are most likely during periods of strong wind and dry conditions. The wind speed is an important consideration as to the generation of dust emissions.

Related Documents

Daily Inspections SOP 6
Daily Check Sheet
Complaints Procedure 14
Dust Management Plan

1) Site Assessment at the start of each Working day

At the start of the day a record shall be kept of the wind direction and the wind strength using the daily check sheet.

The site manager Keith Williams will be responsible for managing the day to day operations and compliance or, in his absence, Andrew Williams or a nominated person who is fully conversant with the EMS will direct operations assess the type of work that needs to be carried out against the prevailing weather conditions and shall determine what is to be done during the day and instruct operational staff to carry this out.

They will decide whether to :

- Allow the commencement of crushing and/or screening operations by assessing the if the wind speed is to high (see below) and/or;
- damp down waste prior to crushing and/or screening and/or;
- use the misting on the crusher/screener or any other plant and/or;
- use bowser and/or roadsweeper on the yard and road and/or;
- use water to damp down stockpiles and/or;
- take any other action which they deem would be beneficial.

STANDARD OPERATING PROCEDURE No10

In making the decision whether to start crushing/screening operations the following guidelines will be used.

When the winds are Force 2 or below it will be acceptable for waste processing to start.

If the wind strength is Force 3 and it is raining it will be acceptable for waste processing to start.

If the wind strength is Force 3 or above and it is not raining no waste processing will take place.

Whether to damp down the yard/road/stockpiles etc will be based upon visible dust emissions and wind speed and how dry the yard is.

2) During the Working Day

The weather in the UK can change quickly and changes in wind direction, wind speed and the site becoming dryer can cause the dust suppression equipment used in the outside yard to be less effective or make dust suppression required if the day started wet or operations may need to be stopped.

During daily operations the wind strength and direction shall be monitored by site staff by reference to the Beaufort Scale (see SOP 6 and QA12 daily check sheet) and if the wind strength increases to above Force 3, if raining, or Force 3, if not raining, then processing shall be stopped

Once processing has started if visible dust is being generated by the process and is being moved away from the processing area then dust suppression measures shall be deployed or, if already deployed, re position the dust suppression system and test the effectiveness.

What and where dust suppression measures will be used depends upon the source of the dust emissions for example are they from the crusher/screener ? If so deploy the misting on the crusher and screener. Are they from the handing of the waste material ? If so damp down the waste material before it is loaded. If it is from the stockpile damp down the stockpile etc.

The aim is always to minimize dust generation at source.

If the suppression system is not being effective contact the site manager to determine what actions should be taken.

In the event of a breakdown of the dust suppression systems the site manager shall be contacted immediately to arrange for repairs or the activities to be re assessed.

If dust generation cannot be contained and dust is being blown from the processing area at the site then crushing/screening will stop.

STANDARD OPERATING PROCEDURE No10

The site roads and yard area shall be monitored visually throughout the day and the site manager informed if dust levels increase. Arrange for the roads to be swept or damped down as appropriate.

If dust builds up on fixed plant it will be brushed down when needed. Only during wet or damp weather can cleaning be by using compressed air. Any potentially dust producing materials on the site surfaces shall be cleared up and stored in a manner that will prevent it becoming windborne.

3) Operation of Site

a) Loading shovels used for loading and moving waste around the site shall be operated in a manner that reduces dust becoming airborne by placing the bucket on the ground or onto the stockpile and then discharging the material without dropping it from a height.

b) Loading shall be done keeping the drop to a minimum and at a speed which does not cause excessive dust releases.

4) At the End of the Working Day

The site shall be inspected to ensure that there is no material that could become windborne on the site surfaces or fixed plant. If there is then the material shall be cleared.

If there are dust emissions coming off waste stockpiles then the stockpiles should be damped down before the end of the day. If hot, dry weather is forecast the site manager will ensure that resources are in place to monitor the site out of hours and take any action needed to ensure that dust is not generated on site which may leave the site boundary.

COMPLAINTS PROCEDURE

PURPOSE

This procedure details how to act upon and document any complaints made by residents or other bodies regarding issues relating to the site operations. The procedure requires the nature of the complaint to be investigated and any remedial actions necessary to be recorded. The procedure has been broken down into several elements which are Noise, Odour, Dust and Litter. For any other complaints the site manager or his nominated deputy shall record the nature of the complaint and any actions taken. For any complaint the first step will be to substantiate whether or not the complaint is valid. Form QA/06 should be used to record any complaints, the action taken and the outcome.

Noise

In the event of a complaint the first step shall be for the site manager or his nominated deputy to carry out an auditory survey at the source of the complaint and at several points around the site paying particular attention to the site boundary closest to the complainant. A record of the monitoring exercise shall be made (use form QA/06) using a qualitative approach using the following noise scale:

Very Low	No discernible noise from operations
Low	Faint noise from operations
Medium	Normal noise levels
High	Above normal noise emissions

A record shall also be made (use form QA/06) of any operations being carried out close to the source of the complaint along with a note of any abnormal activities on site.

If the level of noise is considered to be in the Very Low to Medium category then no further action should be necessary. In the event of the noise emissions being judged as high then the operations causing the noise shall be reviewed by the site manager or his nominated deputy immediately.

If necessary then the site manager shall arrange for a quantitative noise survey to be carried out. The results of the noise survey shall be reviewed to assess the operations.

Odour

In the event of any complaints regarding odours from the site the first action shall be for the site manager or his nominated deputy to perform olfactory monitoring at the source of the complaint and at several points around the boundary close to the complainant.

STANDARD OPERATING PROCEDURE No 14

A record shall be made of the qualitative odour strength and type of odour (use form QA/06) . If the source could be from the storage areas then these areas should be assessed. Any odour sources should be recorded and an investigation into the cause of the odours made.

A record shall be kept of any inspections and remedial works carried out (use form QA/06) .

Dust

Any complaints regarding dust shall be investigated by inspecting, as soon as possible and within the working day, the site boundary visually to see if dust from the site is being blown off site. The area around the source of the complaint shall also be inspected to look for evidence of dust deposits. A record shall be made of the inspections and any remedial actions instigated (use form QA/06) .

Litter

Complaints regarding litter shall be investigated by inspecting the site boundary and the minor roads surrounding the site. Record actions and results on form QA/06. Action will be taken immediately to cleanse any affected areas.

Other Complaints

A record of any other type of complaint shall be made and dealt with in an appropriate manner by the site manager or his nominated deputy. Use form QA/06.

Management review

After every complaint either Keith Williams or Andy Williams will review the complaint, ensure that the complainant has been contacted with feedback and that NRW has been contacted, if needed. A review of the Environmental Management System will be undertaken as soon as possible to ensure that it addresses any issues raised by the complaint.

If numerous similar complaints (i.e. 2 or above) are received on the same day operations will stop until the complaint has been investigated in accordance with this procedure and any appropriate corrective action put into place.

Complaints Record

Who made the complaint?	Name:	
	Address	
	Phone No	
Date and time they made the complaint		
What happened, what was it about?		
Was anyone else aware of this – other neighbours or your staff? If so who?		
Did the complaint relate to the Aberbechan site? If so, what happened? What went wrong?		
What have you done to make sure that it does not happen again?		

Have you provided feedback to any complainant? If so who, how , when, and what was outcome ?

Note provide feedback within the working day and asap

Was there any **significant pollution** or **environmental damage** to land, water or protected areas – for example: dust, odour or noise pollution outside the site or spillage of polluting liquids onto the ground, or at a site of special scientific interest or a watercourse? (If so, then complete an incident form)

If there was, then you must take steps to prevent further damage and notify NRW on 0300 0653000 and any other relevant regulators ASAP. Have you done so?
Yes / No

Who did you phone?
At what time did you phone?

You must also write or send an email to confirm this to the local NRW office within 24 hours . Have you done so?

Yes/No
What date did you contact?

Please print your name and sign:

Continue overleaf or on a separate sheet if you do not have enough room.
Keep the completed form in the file to discuss with NRW when they visit.

DAILY INSPECTION FORM QA12 v4

Week Commencing

DAILY CHECKS – complete with comment X or ✓ and initial

	Mon	Tues	Wed	Thurs	Fri	Sat
Wind strength using Beaufort Scale see overleaf						
Wind Direction						
Processing Building						
All conveyors secure and in situ						
All conveyor skirtings fitted correctly without gaps or discharge points						
All floor surfaces clear of debris and dust						
No build of dust on the Plant and Equipment						
Water Spray/ Mist Dispensers operating effectively if needed						
Bunds secure and free of leaks and spillages						
Physical safety barriers secure and in situ						
Surrounding areas/ perimeter free from evidence of dust accumulation						
Outside Areas	Mon	Tues	Wed	Thurs	Fri	Sat
Check for dust deposits/ emissions						
Perimeter check for excessive noise						
Perimeter check for litter						
Perimeter check for odour						
Check for pests						
Check for build up of dust on buildings and plant						
Check Site Roads for mud or dusts						
Check Drainage system for blocked gullies and also the interceptors/ sealed sumps						
Check storage areas for compliance with stockpile sizes and potential to create windblown dust						
Check the bunding and integrity of fuel tanks						
Check plant for hydraulic and fuel leaks						
Site surfaces for dust build up/mud/ debris						
Site security fencing for breaches						
Spillages						
End of Working Day Checks (Fire watch)	Mon	Tues	Wed	Thurs	Fri	Sat
All plant is parked in the plant storage area away from combustible materials and checked for dust build up						
Check stockpiles and containers for fires or smouldering						
All processing plant and lighting turned off						
Any non-programmed cleaning required?						
Are there any dust emissions on the site ?						

Comments (include date)

Continue on a separate sheet if required

THE BEAUFORT SCALE

Force	Mph	Description	Effects on Land
0	0	Calm	Smoke rises vertically
1	1-3	Light Air	Smoke drifts in wind
2	4-7	Light breeze	Leaves rustle, wind felt on face
3	8-12	Gentle breeze	Small twigs in constant motion, light flags extended
4	13-18	Moderate wind	Dust leaves and loose paper raised, small branches move
5	19-24	Fresh wind	Small trees sway
6	25-31	Strong wind	Large branches move, difficult to use umbrellas
7	32-38	V Strong wind	Whole trees in motion
8	39-46	Gale	Twigs break off trees, difficult to walk
9	47-54	Severe gale	Chimney pots and slates removed
10	55-63	Storm	Trees uprooted, structural damage
11	64-72	Severe storm	Widespread damage
12	>73	Hurricane	Widespread damage, (rare)



Force 2 Approximately 4mph



Force 3 Approximately 8mph



Force 3 upper limit Approximately 12mph



Force 4 Approximately 16mph



Force 5 Approximately 20mph

