SGM10: DUST AND EMISSIONS MANAGEMENT PLAN

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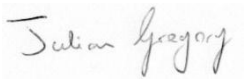
Authorised by	Julian Gregory	23/07/2025		

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1 SITE DETAILS

Operator	SGM Waste Management
Activity address	Wentloog Avenue, Newport, CF3 2TN
National Grid Reference	ST 46457 92070

This Dust Management Plan has been prepared for SGM Waste Management facility located off Wentloog Avenue, Newport, CF3 2TN.

The site is located at Sluice Farm, off Wentloog Avenue, Peterson Wentloog, Cardiff. The site is accessed directly from Wentloog Avenue, via a dedicated site access. There is a secondary access into the carpark and office area of the site.

The site lies within the Peterson and Wentloog SSSI, but the site is outside the SSSI boundary and is not classified as SSSI.

SITE OPERATIONS:

SOURCES OF DUST DURING SITE OPERATIONS:

Dust emitted from sites can cause severe nuisance to surrounding residents, businesses, habitats / species and facilities. In its simplest form it can cause additional cleaning work and reduce resident's quality of life but in its most severe form it can have acute effects on people's health especially those suffering with respiratory conditions such as asthma. Dust can also have an impact on the ecology of the area blanketing vegetation preventing it from transpiring and reducing food sources for animals and invertebrates.

The following activities have been identified, which have potential to emit dust, during operations at SGM Waste Management:

Source:

- Dust emitted from material processing operations
- Dust emitted from vehicle movements
- Dust emitted from materials handling and loading.

Pathway:

- Fugitive airborne dust, which can be carried from site via wind.
- Particulate vehicle emissions.
- Gaseous emissions from plant and vehicle exhausts.

Receptors

The nearest human dust-sensitive receptor is Sluice House, a residential property with associated agricultural and equestrian use, located approximately 30 metres west of the site boundary on the western side of Tarwick Reen. A second residential property is situated on Wentloog Avenue, approximately 110 metres from the site boundary.

The site is also adjacent to the Rhymney and Peterstone Site of Special Scientific Interest (SSSI). Dust-sensitive ecological receptors within this area include:

- Grassland and scrub habitats within the SSSI
- Birds nesting or feeding within hedgerows and tree lines
- Amphibians inhabiting the reens and adjacent wetland areas
- Reptiles and mammals present within grassland and scrub habitats

The Rumney Great Wharf Local Wildlife Site is approximately 590m west of the site. This is designated for ?????

The Severn Estuary SSSI, SAC and RAMSAR Site lies 300m south of the site. The SAC has sensitive saltmarsh and mud flat habitats used by wading and over wintering birds.

Due to the ecological sensitivity of the surrounding SSSI, and the Severn Estuary SAC particular care is required to prevent fugitive dust emissions from impacting these habitats.

Dust impacts on workers operating within the site have been assessed separately through task-based risk assessments and are managed under the SGM Waste Management Health and Safety system. As such, they are not considered further within this Dust Management Plan.

Controls:

To mitigate against the impact of dust the following actions should be employed:

Action	Description
DCI waste handling and sorting.	All DCI waste tipping and sorting will be undertaken within the Materials Recovery Facility building. This is fully enclosed across the north, east and west facades of the building, with a roller shutter door on the western façade to allow access to the building for waste delivery vehicles and plant. This prevent particulates becoming wind blown. There is a spray mist damping down system with spray nozzles installed at 6m intervals across the apex of the roof and where the roof meets the walls. This is fed from two 30,000l tanks on the eastern corners of the building, via a pump. The tanks are filled by runoff from the MRF roof. A 32mm mains supply is available if the tank is empty.

Action	Description
Use of the Tromell to screen wastes.	The Tromell screen has a high potential to produce dust as it screens out aggregates and fines. It therefore has an integral spay mist damping down system fed from a mains water supply. The spray mist works as an aerosol and hence is effective at damping down dust but does not wet the wastes.
Operation of the picking line	The area above the picking screen is enclosed with the enclosure, air conditioned and positive to maintain air quality for workers on the picking line. The air conditioning removed dust and odours. There is a low level aerosol spray mist system operating across the picking belt and within the bays beneath the picking belt.
General Good Site Practice	Drop heights shall be kept to a minimum during the movement of materials. Haul routes will be maintained clear from site material and if required shall be dampened down in dry weather conditions, using water from grey sources where possible. All vehicles and plant on site shall be fully serviced and maintained, where possible vehicles used will comply with Euro IV and V standards. No vehicle on site shall be permitted that emits black smoke. No plant or machinery shall be left running when not in use.
Road Cleaning	Site traffic will be confined to the hard surfaced roads which run around the site. Haul roads will be graded clear of site material daily. This will be carried out using a tele-handler fitted with either a bucket (for the removal of large debris) or a wet brush bar.
Damping Down	This will be achieved via spray jets located along the sites northern boundary and the utilisation of a towed 11,000l water bowser fitted with a spray nozzle which will dampen the surfaces with a fine mist spray. Any locations which cannot be reached by this method shall employ a dampening method utilising a hosepipe either fitted to a bowser or a water main. Water from damping down will also be obtained from the attenuation ponds using a pipe and gravel sump to ensure the pump does not agitate silt from the base of the pond.
Screening Equipment	Dust suppression will be utilised during all screening and materials processing operations. This will be done using integrated suppression equipment on the item of plant or using water sprays.

Action	Description
Speed Signs	A strict speed limit of 10mph is present on the site. Speed signs will be erected across the site to ensure all operatives, delivery drivers and visitors are aware of this limitation. Enforcement action will be carried out by the site managers with any personnel or visitors witnessed to be violating these restrictions.
Dumper Exhaust Modification	In some circumstances dumper and plant exhausts can agitate loose materials from the surface of haul roads. If this is found to be the case the exhaust pipes of the item of plant will be modified to ensure they do not point directly down at the ground. This will prevent the exhaust gasses from disturbing the ground and mobilising dust.
Dust Monitoring	The key tool for the identification of excessive dust will be visual inspections performed by the Site Manager. If as a result of this, or following concerns by the MoD, regulators or from members of the public, further monitoring is required then DustDisc Dust Deposition Gauges will be utilised to monitor dust generated by the site. These will be sent for analysis fortnightly during periods of dry weather. This should give empirical evidence to the effectiveness of the dust mitigation measures incorporated at the site, or allow for the direction of further mitigation requirements. These gauges will be located around the site boundaries.
Site Inspections	The site manager will undertake daily inspections for dust levels at the site and will instruct further mitigation as required.
Toolbox Talks	SGM Waste Management will ensure operatives are given toolbox talks on the importance of dust mitigation and the methods to be incorporated at the site. Toolbox Talks will be based on the contents of this pln. Records will be kept for the talks including attendance sheets. Dust mitigation will be included within task specific Method Statements, which will be briefed to personnel undertaking the works.
Communication	If it is identified that excessive dust is being generated from the works or if complaints are received, contact will be made with Monmouthshire Council Environmental Health on 01291635711 or environmentalhealth@monmouthshire.gov.uk

2 SMOKE:

Burning is prohibited at the site but this section deals with smoke from burning and smoke emitted from plant and machinery. Smoke can contain harmful substances such as carbon monoxide and diesel particulate matter (DPM). This can be dangerous to anyone in the

immediate vicinity of the site, as well as contribute to the level of greenhouse gasses in the atmosphere. The impact of smoke on the local environment is low unless the quantities being released are large. Smoke can cause damage to habitats and species and nuisance to local residents via visual intrusion and odour.

Sources:

- Smoke emitted from poorly maintained plant engines
- Smoke from burning materials on site

Pathway:

- Smoke is airborne, so can be transported via wind.

Receptor:

- Site employees
- Local Residents
- Global Atmosphere

Controls:

- Burning on site is prohibited unless under consent of the Natural Resources Wales and Monmouthshire Environmental Health Department.
- SGM Waste Management is committed to a plant and vehicle replacement programme with the majority of their vehicles now being Euro 6.
- Site vehicles are subjected to daily checks to ensure they are in optimum operational condition. They are serviced as per the manufacturers recommendations. Records for both are maintained in the site office.
- A fire prevention strategy is present to prevent the spread of fire within the waste operations and also the office.

3 DUST MONITORING:

The simplest form of dust monitoring is visual inspection performed by the Site Manager.

Formal Dust Monitoring will be undertaken using the following equipment:

3No DustScan – DS 100-D – Combined directional and depositional sticky pad dust gauges. These will be placed on the northern, western and southern aspects of the site.

The sticky pads from these will be analysed for directional AAC% and EAC%.

The DustDisc will be analysed for settlement AAC% and EAC% data and gravimetric mass mg/m2/day.

Media will be changed monthly throughout the summer and during the winter if dry months are recorded.

This should give empirical evidence to the effectiveness of the dust mitigation measures incorporated at the site or allow for the direction of further mitigation requirements. These gauges will be located around the site boundaries.

DS 100-D monitoring locations are shown on Drawing No: 2154-SGM-005