# DAY GROUP AGGREGATES BAGGING DEPOT
# AND ASSOCIATED STORAGE AND PARKING AREAS
# AT KINGSTON WHARF, SHOREHAM

## DUST MANAGEMENT SCHEME

**September 2014**

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## 1 Introduction

1.1 Day Group Limited. ('Days') operate an aggregates bagging depot at Kingston Wharf, Shoreham and it is proposed to regularise additional areas of storage and parking associated with this use and to allow use of a mobile bulk bagging plant.

1.2 The dust management scheme will form an integral part of a planning application Days have submitted for the continued use of these areas. This is consistent with the Process Guidance Note 3/8 (04) - *Secretary of State's Guidance for Quarry Processes*, which notes the desirability of a structured approach to environmental management.

1.3 The operation of the proposed aggregate bagging and distribution facility will be governed by a Local Air Pollution Prevention and Control permit issued by the Council and does not form part of this dust management scheme.

## 2 Description of the Proposed Development

2.1 Site Setting

2.1.1 The site lies to the east side of Shoreham on the A259 Brighton Road. It is bordered to the north by the A259 and to south side by the river Adur. The surrounding area is a mixture of industrial and port uses.

2.1.2 The site entrance and exit is off the A259 road and is fully described and evaluated elsewhere.

2.2 The Depot

2.2.1 The facility bags and distribute aggregates in both 'bulk' and 25kg bags to existing contracts with builders' merchants in the area. These are distributed in full articulated lorry loads (generally about 28 tonnes) to minimise cost, pollution and lorry movements. The loads comprise various aggregates in the two different sizes of bags, according to the customer's requirements. The bulk of these aggregates will be marine-dredged sands and gravels which are imported to the site directly by boat and from other wharves in Shoreham. Other aggregates are land-won in the area.

2.2.2 Aggregates are imported to the site in bulk by boat and by lorry. The water bourne material is unloaded in an area close to the harbour wall. The road bourne material is tipped in ground storage bays.

2.2.3 The aggregate is transferred by wheeled loader from the water-bourne material stockpile and bulk storage bays to the feed hoppers of the two main bagging lines (bulk and 25kg), which are contained within steel-framed and-clad buildings, and to the additional mobile bagging plant when required.

2.2.4 Once filled the bags are transferred by a loadall to storage areas.

2.2.5 Upon receipt of an order the required bags will be loaded onto flat-bed articulated lorries for delivery to customers.

## 3 Potential for Emissions

3.1 The nature of the proposed operation is such that, in the absence of adequate management controls, airborne dust could be raised from the site. As advised in *The Environmental Effects of Dust from Surface Mineral Workings*, coarse dust particles greater than 30µm make up the greatest proportion of dust emitted from mineral operations and are largely deposited within 100m of the dust source(s). Adverse impacts are therefore most likely to be experienced within this distance.

3.2 The principal potential sources of dust emissions have been identified as:

- Lorry unloading operations,
- Loading the feed hoppers of the bagging lines,
- The bagging operations,
- Movement and storage of bags,
- Plant and vehicle movements,
- Road haulage from site, and
- Windblow across stockpiles.

## 4 Means of Prevention

4.1 <u>General Requirements</u>

4.1.1 The following measures for the prevention or minimisation of airborne dust emissions are based on the requirements and recommendations provided in:

- Process Guidance Note 3/8 (04) - *Secretary of State's Guidance for Quarry Processes* (although there will be no prescribed processes at the aggregates bagging depot), and
- The Best Practice Guide, *Dust and Mineral Operations*, appended to *The Environmental Effects of Dust from Surface Mineral Workings*, HMSO, 1995.

4.1.2 The guidance details standard good practices which are accepted by the Government and the minerals industry as providing effective protection against the effects of airborne dust. The essence of the guidance is that any impacts can be controlled by effective site management.

4.1.3 Process Guidance Note 3/8 (04) is based on the adoption of best available techniques (BAT), with the objective of preventing and reducing air emissions.

4.2 Weather Conditions

4.2.1 Local weather conditions can be influential in determining the generation and dispersion of dust, with the potential for airborne dust being greatest during dry, windy conditions. Potentially dusty operations will therefore be undertaken only after taking account of both the current and forecast weather conditions.

4.2.2 As an over-riding requirement, during dry or windy weather, if any operations are identified as causing or likely to cause visible emissions across the site boundary, or if abnormal emissions are observed within the site, then the site manager will immediately reduce or suspend those operations until either effective remedial actions can be taken or the weather conditions giving rise to the emissions have moderated.

4.3 Unloading Operations

4.3.1 As part of the off-site aggregate processing and prior to collection by lorry the aggregates will be moist, having been washed as part of this process. Once loaded all lorries will be sheeted before joining the public highway.

4.3.2 On arrival at the depot, all road bourne aggregates will be tipped into three-sided ground storage bays and conditioned by means of rotating water sprinkers, which

project an arching curtain of water across the storage bays and manoeuvring areas.

4.3.3 Care will be taken not to over-fill the storage bays, to avoid the entrainment of dust into the atmosphere.

4.4 Loading Feed Hoppers

4.4.1 Care will be taken not to overfill the shovel of the wheeled loader and thus avoid spillages which might otherwise cause dust to become entrained into the atmosphere.

4.4.2 Drop heights from the wheeled loader into feed hoppers will be minimised to avoid the entrainment of dust into the atmosphere.

4.5 The Main Bagging Operations

4.5.1 Aggregates from the two feed hoppers are bagged in one of two sizes of bags; bulk (roughly 800kg) and small 25kg. There are separate production lines for each size.

4.5.2 Both operations take place in a building clad with profiled steel sheets. External doors will be kept closed during operation.

4.5.3 Conveyor belts and rollers will be inspected regularly for alignment and adjusted or repaired as necessary.

4.5.4 Effective scrapers will be fitted to the return belts as necessary. All scraped material will be collected up for re-incorporation or disposal.

4.5.5 The ground within the bagging building/s will be regularly checked for spillages. Any spillages will be cleaned up promptly.

4.5.6 Whilst the potential for dust to enter the atmosphere during the bagging process is minimal the building avoids any risk of the entrainment of dust into the atmosphere.

4.6 Movement and Storage of Bags

4.6.1 Once bagged the aggregates are moved by loadall into storage rows.

4.6.2 Enclosing the aggregates avoids any risk of the entrainment of dust into the atmosphere.

4.7 Plant and Vehicle Movements

4.7.1 All vehicle and plant running areas will be concrete or tarmac-surfaced.

4.7.2 The site surfaces will be regularly checked for wear, and any potholes or other defects will be made good promptly.

4.7.3 The site surface will be inspected daily and will be cleared as necessary to ensure that deposits of loose material are not allowed to accumulate. Arrangements will be made to ensure the ready availability of a road sweeper for this purpose.

4.7.4 When necessary during site operations and dry conditions, the site surface will be kept damp using fixed water sprays.

4.7.5 All site plant and heavy goods vehicles will be fitted with upward exhausts to minimise the disturbance of any material from the running surfaces.

4.7.6 A site speed limit of ten miles per hour will be enforced for all vehicles to minimise the possible entrainment of dust into the atmosphere.

4.8 Road Haulage

4.8.1 All vehicles owned by the site operators or contract hauliers will be loaded evenly.

4.8.2 All heavy goods vehicles leaving the site will be checked beforehand by the driver, and will be cleaned as necessary to ensure that material is not dropped on the access road or on the public highway. A high pressure hose and water supply will be made available to clean the wheels, chassis and other parts of vehicles as required.

4.8.3 The internal road and site entrance and exit will be cleaned by road sweeper as required to prevent any track-out being carried from the site towards the public highway.

4.8.4 The exhaust emissions of all vehicles and plant will be regularly checked. All vehicles and plant owned by the site operators emitting black smoke will be taken out of service for maintenance checks and repairs. Any hauliers' vehicles emitting black smoke will be turned away from the site with the instruction that the matter be remedied before the vehicle is allowed to return.

4.9 Windblow across Stockpiles

4.9.1 Delivered aggregates will be kept only within the storage bays.

4.9.2 Disturbance of the surfaces of the stockpiles will be minimised to reduce the availability of loose material which might subsequently become airborne.

4.9.3 The stockpiles will be sprayed as necessary to maintain a damp surface. A spray system will be devised such that full coverage can be achieved under all weather conditions. This is detailed on plan number 12276.

## 5 Maintenance

5.1 Effective control of airborne dust emissions requires the maintenance and proper use of all plant and equipment. A programme of planned maintenance will be carried out on all plant, in accordance with the manufacturers' recommendations, to ensure that it operates at optimum efficiency.

5.2 Stocks of essential spares and consumable items will be held at the depot or kept readily available for use at short notice.

5.3 Any malfunction or breakdown leading to abnormal emissions will be dealt with promptly and operations will be adjusted or suspended until normal working can be restored. All such malfunctions will be recorded in the site logbook.

5.4 The water supply shall be adequately protected against frost to ensure its availability for dust suppression at all times.

## 6 Site Management

6.1 The Site Manager will exercise day to day control on the site and will be responsible for ensuring full compliance with the dust management scheme.

6.2 Specifically, the Site Manager will assume control, either personally or by delegation to suitably trained and responsible staff, of:

- tipping and loading,
- incoming and outgoing vehicle movements,
- sheeting and cleanliness of road transport,
- operation of dust suppression measures,
- inspection, cleaning and maintenance of all plant, and
- satisfactory working of the whole site.

6.3 Staff at all levels will receive the necessary training and instruction in their duties relating to all operations and the potential sources of dust emissions. Particular emphasis will be given to dealing with plant malfunctions and abnormal conditions.

6.4 Any member of staff who wilfully or negligently fails to comply with the provisions of the dust management scheme will be subject to disciplinary action. Any contract hauliers who fail to observe the requirements in respect of vehicle speeds, sheeting or cleanliness will be banned from the site.

6.5 A high standard of housekeeping will be maintained at all times.

## 7 Emissions Monitoring

7.1 In addition to the specific provisions regarding high winds, all operations with the potential to cause airborne dust emissions will be visually monitored on a regular basis during operations. This will include an assessment of any impacts on the downwind site boundary. The results of this daily monitoring will be recorded in the site Environmental Log. An example of this Environmental Log is attached.

7.2 Should visible dust be generated, the Site Manager will act promptly to identify the source(s) of the dust and take the necessary corrective action.

7.3 If necessary, the Site Manager will instruct the suspension of any operation or process causing visible dust emissions more than 10m from the source or crossing the site boundary until such time as the situation has been resolved.

7.4 Site staff will be instructed to inform the Site Manager whenever visible dust emissions are observed, or appear likely to occur, as a result of any operation or process.

## 8 Complaints

8.1 All complaints will be recorded and reported to the Site Manager, who will investigate the circumstances and ensure that the necessary corrective measures are taken. A prompt response will be made to the complainant and a record, including copies of all correspondence and telephone filenotes, will be made in the complaints register.

8.2 The Council will be advised of any dust complaint received together with details of the findings of the investigation and any corrective measures which have been taken.

8.3 In the event of any substantiated complaint, the continuing effectiveness of the dust management scheme will be subject to review in response to the incident.

## 9 Update and Review

9.1 The continued effectiveness of the dust management scheme will be subject to periodic review in consultation with the Council. The review process will take into account the complaints history (if any) of the site, observations of dust and any future potentially sensitive developments on neighbouring land. Recognition will be given also to developments in BAT including improvements in techniques and new understanding of environmental risks and impacts.