

Silica Developments Limited

**Storage and Transfer Facility for Waste Glass
At**

**Gate 4, Shoreham Port, Brighton Terminal, Basin Road South, Shoreham,
BN41 1WF**

Environmental Management System

Odour Management Plan

Reference: EMS-OP-02

October 2024

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Odour Management Plan

1 Introduction

This Odour Management Plan (OMP) has been prepared to support an application for a bespoke permit for Silica Developments Limited (SDL) at their site at Gate 4, Shoreham Port, Brighton Terminal, Basin Road South, Shoreham, BN41 1WF.

The purpose of this document is to identify the operations at the site which may have the potential to generate odour, to present the details of the operational controls which will be implemented to minimise emissions and describe the monitoring which will be carried out to confirm the effectiveness of the management controls.

The OMP forms part of the management system under which the facility will be operated as a condition of the Environmental Permit.

The OMP comprises a living document and will be reviewed in the event of a complaint being received. The review will include consideration of what caused the odour, together with mitigation to prevent recurrence.

This Odour Management Plan has been prepared following the guidance provided by the Environment Agency.¹

The Environmental Risk Assessment is provided as a separate spreadsheet SDL-SBS-ERA-V2.

1.1 Background

Since 2022 Silica Developments Limited has leased the land from Shoreham Port Authority (SPA).

Silica Developments currently use the large bay for storing waste glass, prior to export. This activity is carried out using a S2 Exemption registered with the Environment Agency and following the Regulatory Position Statement 292.²

This exemption allows operators to store waste glass (EWC191205). However, in November 2023, the Environment Agency issued guidance on the classification of waste glass generated from Material Recycling Facilities (MRF). Depending on the contents, some glass from MRFs could be coded as:

191212 – Mixed waste containing glass.

The acceptance of 191212 is permitted under the RPS292.

The use of the site for storing waste glass has been carried out since 2022. There have been no reported odour complaints.

¹ Glass from waste treatment facilities, Guidance LIT 72733, published 21 May 2024.

² [Storing and handling waste glass containing other wastes: RPS 292 - GOV.UK](https://www.gov.uk/guidance/storing-and-handling-waste-glass-containing-other-wastes-rps-292)

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1.2 Site Location

The procedures relate to the permitted activities at Gate 4, Shoreham Port, Brighton Terminal, Basin Road South, Shoreham, BN41 1WF. The site is centred on NGR TQ 76524 31301.

The site is in Shoreham Port, which is a busy industrial estate for loading / unloading at the dockside.

1.3 Scope

These Operational Procedures cover the storage and transfer of waste glass pending export.

The site is a bulk haulage facility for storing and transferring waste glass.

No treatment takes place. No other waste will be received.

1.4 Management System

The Management System covers all aspects of operations and aims to effectively manage the impacts of the business on the environment. The key documents include:

- a) Documents: Procedures to set out how to undertake operations and checking for any issues.
- b) Forms on which to record information and provide evidence of the system functioning properly.

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2 Operations

2.1 Waste Deliveries to Site

The site will only handle waste glass. The following codes will be accepted:

| | |
|--------|------------------------------|
| 150107 | Glass packaging |
| 170202 | Glass |
| 191205 | Glass |
| 191212 | Mixed waste containing Glass |
| 200102 | Glass |

With exception of EWC 191212, all other glass is inert and clean, with a low likelihood of odour.

The waste coded as EWC191212 will include glass that has been separated at a Materials Recycling Facility and classified as such by the producer. On occasions, it may contain small volumes of cardboard, plastic and metal, which are other items separated at MRFs. However, it can also contain a small volume of organic matter. Such matter may be the residual contents from food cans or plastic/glass containers.

The company will only accept wastes which are allowed under the permit. The site is a specialist facility and therefore no non-permitted wastes will be delivered to the site. All deliveries are pre-booked. There can be no ad-hoc deliveries of waste to the site. This is due to the security controls provided by Shoreham Port.

For glass produced at Material Recycling Facilities (MRF), the following checks will be carried out.

Before accepting a new contract for the supply of waste glass from a MRF, a representative of SDL will visit the source site and visually inspect the glass. Samples will be collected for analysis. The mixed glass is typically from large Material Recycling Facilities operated by established, reputable waste management companies (e.g. Biffa, Veolia). They manage the dry recyclables collected from households by local authorities.

SDL will request the previous 12 months testing data generated at the source site. MRF sites are required to carry out output sampling.

The testing will check the glass by weight. A sample is taken and weighed. It is then hand sorted to remove any incidental material (cardboard, metal, plastic and organic). The separated fractions are all weighed. The acceptable limit for SLD will be 95% glass by weight.

Once these checks have been used to classify the waste and confirm it is permitted, the producer will be registered with SDL for delivering waste glass.

During the first week of deliveries from a new source, each load is checked. A sample of glass is taken every 250 tonnes for weight testing.

SDL visually inspect the waste glass stockpile twice per week and maintain a weekly photographic record.

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Glass produced at MRFs can be classified as 191205 Glass, or 191212 Waste Glass containing other non-hazardous waste. The producer (MRF operator) will be required classify the waste glass leaving their site.

SDL will carry out compliance checks to confirm the correct code has been used. With reference to the guidance³, the decision should be made on a case by case basis.

As part of the classification, SDL will confirm if the source site is a Mixed Dry Recyclable Facility (MRF). This will help to confirm that the input material is non-hazardous waste. SDL will review the site's Waste Acceptance Procedures and check their procedures for removing non-compliant waste such as vapes and batteries.

The waste acceptance procedures at the MRF will be important to ensure that any mixed glass containing non-hazardous waste (EWC191212) is non hazardous. The MRF operators also work with Waste Collection Authorities to inform residents and businesses about the materials that can be placed in the collection bin. This will help reinforce the position that batteries and vapes should not be placed in the recycling bin.

With reference to the Environment Agency guidance, when the composition of the waste and its components is widely understood not to include hazardous substances, and visual inspections would easily identify materials likely to be hazardous, then the waste assessment may not need to include sampling and testing.

Prior to removal from the MRF, the waste producer will carry out periodic sampling to confirm the weight of glass, and other components. At this stage, the visual assessment will allow the operator to remove any non-compliant waste such as batteries and vapes.

The MRF glass will typically be from a dry mixed recyclable input which is mixed with paper, plastics, and metal cans only. The input and output waste are consistent and as such no testing will be required.

As the waste is unloaded at the bulk storage facility, any incidental items of waste (plastic bags, cardboard) will be placed in a general waste bin.

For other glass, SDL will visit the source site and check the procedures generating the glass. For single source collected glass, no testing is required.

All waste delivery vehicles will use the weighbridge located at Gate 3. Once weighed, the driver will be provided directions to the bulk storage bay.

The loading shovel operator will be present at the storage bay and will direct the driver to unload into one of the bays, depending on the load.

Once unloaded, the driver will leave the site via the weighbridge.

The loading shovel operator will check the waste, removing any clear and obvious non-compliant waste such as plastic sacks. These will be placed in a general waste container.

3

Glass from waste treatment facilities, Guidance LIT 72733, published 21 May 2024.

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The loading shovel driver will push the waste into the storage bay, ensuring that all waste remains in the bay and below the 5.5m height marker, against the 6m high wall. At the front of the bay, the waste will only be stored to 1.9m, against the 2.4m high front wall.

2.2 Overview of Waste Processing and Odour Controls

The site layout is shown on Drawing No. SDL-SBS-LAY-01. This will be a facility for bulk storage and transfer only.

The bulk storage facility has a 6m high concrete wall around three sides, with sub dividing block work forming internal bays. There is also a 2.4m high concrete block wall forming the front barrier, with just an entry point for vehicles to unload / load.

Bay 1 will be used for storing MRF Glass. This will be coded EWC 191205 Glass or 191212 mixed waste containing glass, depending on the classification.

Bay 2 will be used for storing MRF Glass or other glass.

Both bays will have separate sealed drainage. Any surface water within the storage bay will drain to a pipe that will drain into a sealed channel. The sealed channel will be inspected daily and if the water level is at 75%, arrangements will be made to empty the system.

Table 1 –Wastes Typically Accepted at the Site

| EWC Code | Description | Risk | Mitigation |
|-----------------|------------------------------|--|--|
| 150107 | Glass packaging | Negligible. Waste glass from these sources will have a low potential for odour generation. | None required. |
| 170202 | Glass | | |
| 191205 | Glass | | |
| 191212 | Mixed waste containing Glass | Low risk of odour generation. The waste glass will be from Material Recycling Facilities that handle dry mixed recyclables only (glass, cans, paper, cardboard). May contain incidental organic contents such as food residue. | <p>Waste acceptance provided to residents. Residents informed to wash glass waste before placing into recycling container.</p> <p>The bays will be checked daily. Any noticeable odour will require the waste to be turned by the machine operator.</p> <p>The presence of high 6m bay walls, will contain the glass and prevent the south westerly wind impacting the waste and transferring any odour down wind.</p> <p>If odour becomes a problem, the operator will review the waste acceptance procedures and if necessary agree alternative arrangements with the MRF producer. Or de-odorising units will be installed at the permitted site.</p> |
| 200102 | Glass | Negligible. Waste glass from these sources will have a low potential for odour generation. | None required. |

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2.2.1 Waste Storage and Quantities

The annual permitted throughput of the facility will be 100,000 tonnes.

The maximum storage capacity at the site is 12,000 tonnes.

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3 Odour Management

3.1 Responsibility for Implementation of the DEMP

The Technically Competent Manager (TCM) has responsibility for ensuring these procedures are adhered to which includes communication with staff and contractors, and the provision of adequate training. The TCM is responsible for updating and re-issuing these procedures as necessary and ensuring all staff are trained in new procedures. The TCM will be the main point of contact for ensuring implementation of this plan. In their absence, the Site Supervisor will be responsible for implementation.

All staff will be trained in these procedures. The TCM is responsible for delivering training and maintaining records. Training is reviewed on an annual basis.

SDL works with representatives at Shoreham Port. Shoreham Port provide plant and machinery with operators for loading ships and moving the waste once it has been unloaded.

All Shoreham Port staff involved with this bulk storage facility, will receive training associated with this specific waste stream.

3.2 Sources

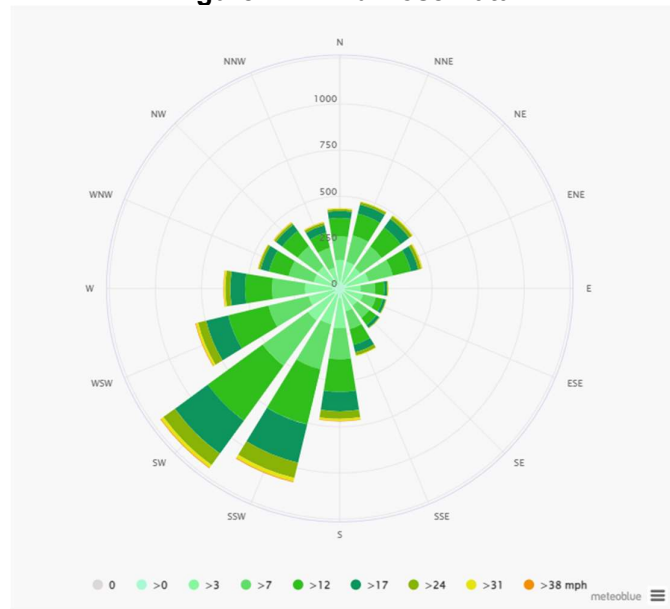
The following are potential sources of odour emissions:

- Mixed waste containing glass EWC 191212

With reference to the wind rose for the site, the prevailing wind direction is from the south west and therefore areas to the north east of the site are down prevailing wind of the site.

Windrose data has been obtained for Shoreham by Sea.

Figure 1 - Wind Rose Data⁴



⁴ [Simulated historical climate & weather data for Shoreham-by-Sea - meteoblue](#)

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Figure 2 shows the site and broad location of the main receptors within 1km. Table 2 provides a description of those receptors and the distance and direction from the site. The distance has been measured from the permit boundary, at the closest point. The receptors list and plan have been derived from the Environmental Risk Assessment and identify all receptors that may be sensitive to a risk. Not all listed will be sensitive to odour.

In terms of the sensitivity to dust the following has been adopted:

| Type of Receptor | Sensitivity |
|---|--------------------|
| Residential, schools, hospitals, nursing homes, | High |
| Industrial premises, recreational grounds, | Medium |
| Roads, Industrial premises | Low |

There may be other unique receptors that do not fall within any of the above categories. These have been considered separately depending on the nature of the business and use. People on footpaths are transient receptors. There are no public rights of way through the port.

Figure 2 - Site Setting and Receptors (The permitted site is shown with a green boundary). Blue shows 500m radius from centre point of site. The red line shows 1km radius from the centre of the site.

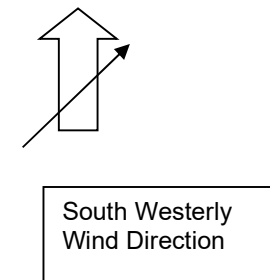


Table 2 – Receptors

| Receptor | Legend | Type | Sensitivity to Odour | Distance and Direction from Permitted site |
|---------------------------|---------------|---------------|-----------------------------|---|
| River Adur | A | Surface Water | Negligible | Immediately North |
| English Channel | B | Surface Water | Negligible | 180 South |
| Shoreham Port | C | Industrial | Low | Immediately South, East and West |
| Aggregate Processing | D | Industrial | Low | 100m West |
| Aggregate Processing | E | Industrial | Low | 70m North |
| Industrial Estate | F | Industrial | Low | 170m North East |
| Industrial Estate | G | Industrial | Low | 270m North East |
| Fishersgate Terrace | H | Residential | High | 150m North East |
| St Richards Road | I | Residential | High | 165m North |
| Brambledean Road | J | Residential | High | 205m North |
| St Peters Road | K | Residential | High | 205m North |
| George Street | L | Residential | High | 320m North East |
| Church Road | M | Residential | High | 265m North West |
| Middle Street | N | Residential | High | 255m North East |
| A259 | O | Road | Negligible | 140m North |
| Train line | P | Railway | Negligible | 575m North |
| St Marys Primary School* | Q | Education | High | 570m North East |
| St Peter's Primary School | R | Education | High | 190m North |
| Clarendon Place | S | Residential | High | 440m North East |
| Southwick Leisure Centre | T | Recreational | Medium | 735m North West |

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3.3 Risk Assessment and Control Measures

The waste will be stored in a bulk storage facility, which benefits from a 6m high concrete rear and side walls. There will also be internal walls to separate different waste stockpiles.

Waste will be stored in the bay no higher than 5m against the 6m high wall. This will ensure that there is freeboard, and that no wind whip will occur across the stockpile.

The nearest sensitive receptors are located north east and north of the site. The houses will be protected by the 6m high concrete wall, which will reduce the likelihood of any odour being transferred from the source site. The storage bay also has a retaining front wall, which contains the waste.

The waste is loaded out on a first in – first out principle, ensuring that waste glass is not stored for long periods on site.

The loading shovel driver will turn the waste as it is loaded out of the site.

The waste which has the highest potential for odour generation, will be EWC191212 mixed waste containing glass. Control measures are in place at the MRF, with the Waste Collection Authority providing educational material to local residents to ensure that only clean dry recyclables are placed in the recycling bin. This should remove any residual food waste. Glass is required to be washed before being placed in the recycling container.

The MRF uses sorting technology to separate the dry recyclables into the various components. There will be some non-hazardous waste such as cardboard and plastics that remain with the glass. These items are not odorous.

The main risk with EWC191212 will be the presence of any residual organic waste, that could generate odour. However, the low levels of such contents will minimise the likelihood of odour. SDL will accept this waste stream containing 95% glass. This combined with no history of odour complaints, provides confidence that the site location, distance to the sensitive receptors, nature of the waste and existing controls are all effective at minimising odour emissions.

The site has operated in the same manner since 2022 without odour complaints. The only reason for applying for a permit is due to the Environment Agency introducing a new EWC if glass produced at a MRF contains a high level of mixed waste (plastic, cardboard and cans).

3.4 Routine Cleaning

The site is subject to regular cleaning. When a shipment has been loaded, the storage bay will be swept and cleaned prior to new deliveries.

3.5 Odour Monitoring

The site management and all site operatives will check for odour during any site inspection.

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This will involve standing at the monitoring points identified below and confirming that no odour is present.

All SDL staff and Shoreham Port staff will be trained to notify the Site Management if they detect odour at any time during their work.

The following monitoring locations are provided.

Figure 3 Monitoring Locations



Table 3 – Monitoring Locations.

| Monitoring Location | Target Area |
|---------------------|---|
| M1 | To check if odour is being generated and detected outside the site boundary. This will also consider if any litter has escaped to ensure there is no accumulation of waste that could generate odour. |
| M2 | |
| M3 | |
| M4 | |

If odour is detected, a record will be made in the Site Diary. This will include the following information:

- Who detected the odour (if SPA staff, who at SDL was contacted).
- Name of monitoring point.
- Action taken (including turning the waste), site visit by SDL staff.

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The OMP will be reviewed on an annual basis or sooner if requested by the EA. It will also be updated if the operator changes the operation.

In the event of complaints being received, the complaint procedure will be implemented to record details and findings.

3.6 Weather conditions – Contingency Measures

The TCM and site management will check the forecast at the beginning of each week to check for the following weather conditions which could cause a potential on or off-site odour complaint:

- Periods of hot weather exceeding 3 dry days which could lead to odour.

Additional measures may be used during these conditions, as any decomposition will be accelerated during dry conditions. The additional measures will include:

- Increase monitoring throughout the day to check site conditions.
- Stock rotation to bury any odour generating waste within the waste
- Any obvious source of odour will be removed and placed into a sealed bin.

Should these actions not result in an improvement in conditions, a mobile de-odorising unit will be hired to reduce odour.

3.7 Operational Failure

The site has minimal opportunities for operational failure. SPA provide plant and machinery for moving the glass once unloaded and for loading the ships. SPA has a dedicated team of operatives and mechanics for ensuring continued availability of plant.

The TCM will be contacted by staff in the event of any operational failure such as the breakdown of plant. The TCM will liaise with SPA to make sure that contingency plant is provided. This is especially important for loading waste on to the ship.

SPA has on-site mechanics available to assist with any breakdowns and they have additional plant available.

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4. Reporting and Complaints Response

The Site Manager has the overall responsibility for this procedure.

The administration staff will all be responsible for handling complaints and recording on the correct form. All complaints must be referred to the Site Manager.

In this context, a complaint may be received directly from a resident, customer, adjoining business, staff at Shoreham Port, or from a Regulator.

It is likely that complaints will be directed to SPA. If SPA receives a complaint, a record will be passed to the TCM and summarised in a Site Diary.

The TCM will review the activities that may have given rise to the complaint. Other actions will include:

- Review of site diary and check for any unusual regional weather events occurring during the day on which the complaint was made.
- Review site diary and establish what site activities were taking place at the time the complaint even occurred.
- Review waste types currently stored on site.
- Identify whether there were any other activities in the area taking place that could have generated odour.
- If it is established that the emissions were attributable to activities being undertaken at the site, as necessary review the relevant operational procedures and implement improvements and provide additional training to site.

The TCM will aim to provide feedback to each complainant within 48 hours of receiving the complaint.

If the site receives several substantiated complaints, the operator will carry out a detailed assessment of the waste being stored. If the source is determined, the TCM will notify the contractor producing the waste. The contractor will check their procedures and work with Waste Collection Authority to reinforce message about acceptable recyclables.

If necessary, the TCM will consider increasing the frequency of waste removal from the site during the weather periods that increase the risk of odour.

The site has been used for bulk storage of waste glass since 2022, without any odour complaints.

4.1 Engagement with the Community

The immediate neighbours will be contacted, and direct dial telephone details provided for the TCM and main officer number. Email contact details will also be provided.

SPA carries out engagement with all users in the Port and will contact SDL directly should any complaint be received.