Silica Developments Limited

Storage and Transfer Facility for Waste Glass
At

Gate 3, Shoreham Port, Brighton Terminal, Basin Road South, Shoreham, BN41 1WF

Environmental Management System

Odour Management Plan

Reference: EMS-OP-04

18 August 2025
Version 1

DOCUMENT CONTROL SHEET

Version Reference	Date	Reason for Change	Issued by
1	18.8.2025	Application for Environmental Permit	ISL

EMS-OP-04

Odour Management Plan

Contents

1 Introduction

This Odour Management Plan (OMP) has been prepared to support an application for a bespoke permit for Silica Developments Limited (SDL) at Gate 3, 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-SP-ERA-V1.

1.1 Background

Since 2012 Silica Developments Limited has leased land from Shoreham Port Authority (SPA).

Silica Developments used two large external bays for storing waste glass, prior to export.

There have been no reported odour complaints.

The operations to be carried out under the Environmental Permit will take place inside a building.

1.2 Site Description

The procedures relate to the permitted activities at Gate 3, Shoreham Port, Brighton Terminal, Basin Road South, Shoreham, BN41 1WF. The site is centred on NGR TQ 26109 04715.

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

Waste glass will be received and stored inside a building. The building is enclosed on four sides with two vehicular entrances and pedestrian fire escapes.

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

The permit boundary also includes an external area which will be used to temporary store the glass prior to loading. This temporary storage area will enable the crane to load the waste glass into the ship.

The waste glass will only be transferred to this holding area when the export process can commence, i.e. the ship is arriving or is alongside.

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.

Please note, reference has been made to the Odour Management Plan guidance and template. However, the template acknowledges that it can be used across all sectors including *waste transfer station, anaerobic digestion plant, abattoir, food processing, intensive farming.* This OMP has been prepared to provide a bespoke plan for the activity of storing and transferring glass, which has a low risk of odour.

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.

The EMS will include the following documents:

- EMS OP 01 Operational Procedures
- EMS OP 02 Fire Prevention Plan Odour Management Plan
- EMS OP 03 Dust and Emissions Management Plan
- EMS OP 04 Odour Management Plan
- EMS OP 05 Pest Management Plan

All documents will be kept at SDL head office, with copies available electronically at SPA.

1.5 Responsibility

The Director has the overall responsibility of implementing this plan. The TCM and Site Supervisor will both be responsible for implementing the plan on a day to day basis.

The Odour Management Plan will be reviewed at least annually, or sooner if there are substantiated complaints received.

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 carboard, 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 within 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.

From an odour perspective, the fragments of cardboard, plastic and metals will not be odorous. Any residual organic fraction could generate odour, but this contributes a small percentage of the total load, that it is considered insignificant.

Recent Environment Agency inspections have not recorded any odour emissions.

There have been no odour complaints.

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.

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 guidance[2], 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.

Receipt and Management of Odorous Materials

The site operations do not involve waste that has a high potential for odour generation. The site will manage waste glass, some of which has been transferred from MRFs. As MRFs handle waste collected from household waste recycling collection services, there is a chance that some glass may contain residual organic waste. For example, glass jars that contained food which have not been washed out.

However, this residual organic waste will have a low odour potential and a low risk of causing an odour nuisance, for the following reasons:

- It will be a very small percentage of the overall load.

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

- Waste will be received and stored inside a building until ready for export.
- It will be mixed and contained within a high volume of waste glass.
- The load is removed from the site on a first in, first out principle.
- No history of complaints.
- No nearby sensitive receptors.

The MRF glass is routinely removed from these facilities to maintain capacity of incoming contracted waste. Assuming that waste glass has been collected from a household on a fortnightly collection, and transferred to the MRF, it could be 2-3 weeks old the time it reaches the permitted site. SDL work on 3-week cycles, with a first in first out principle. Therefore, the waste glass from a MRF operation, which could be classified as EWC 191212, could potentially be 5-6 weeks old from the point the householder places it in a recycling container. Any residual organic waste would be highly mixed with the overall glass load. The waste has a low odour potential.

The waste glass will be delivered in enclosed vehicles. For all waste glass deliveries, there could be 6 - 7 loads delivered per day, with only half of these handling glass from MRFs.

All loads are pre-booked into the site and therefore the vehicles do not queue.

As the waste is unloaded inside the building, 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 building.

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

Once unloaded, the driver will leave the site via the weighbridge. The vehicles are not washed on site.

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.

The loading shovel driver will push the waste into the storage bay, ensuring that all waste remains in the bay and below the height marker.

Hours of Operation

Shoreham Port is open to receive waste deliveries during the following hours:

Monday to Friday	0600 – 1700
Saturday	0600 – 1200

Ships can be loaded during the following hours:

Monday to Friday	0700 – 1800
Saturday	0700 – 1800*

*this may occur two to three times per year.

For Silica, most waste deliveries will take place during the working week.

2.2 Overview of Waste Processing and Odour Controls

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

The bulk storage facility includes a building in which to receive and store waste glass. There will be separate storage bays inside the building for different waste glass.

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.

The waste will be removed from the building when a ship is ready for loading. The waste glass will be loaded onto a bulk haulage vehicle and transferred to the temporary holding area outside. There will be a concrete wall to provide a contained area. The crane will be positioned north of this wall and will grab the waste glass and load the ship.

This external area will be used for temporary storage only pending loading for export.

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.	Waste handling advice provided to residents. Residents informed to wash glass waste before placing into recycling container. Waste unloaded and stored inside a building. The building will be checked daily. Any noticeable odour will require the waste to be turned by the machine operator. If odour becomes a problem, the operator will review the waste acceptance procedures and if necessary agree alternative arrangements with the MRF producer. Any noticeable odour materials encountered on site, will be placed in the quarantine containers. Arrangements will be made to remove such waste within the next 2 working days. Following any substantiated odour complains, SDL will re-assess the OMP and consider installing de-odorising units will be installed at the permitted site.
200102	Glass	Negligible. Waste glass from these sources will have a low potential for odour generation.	None required.

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 8,000 tonnes.

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

This waste may contain residues. However, this will be a very small percentage of the overall volume of waste and is unlikely to cause odour.

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.

The waste will be stored inside a building or behind a concrete wall outside pending transfer to the ship. This wall is orientated along an East-West direction, which creates a barrier against wind transfer.

Windrose data has been obtained for Shoreham by Sea.

Figure 1 - Wind Rose Data[3]

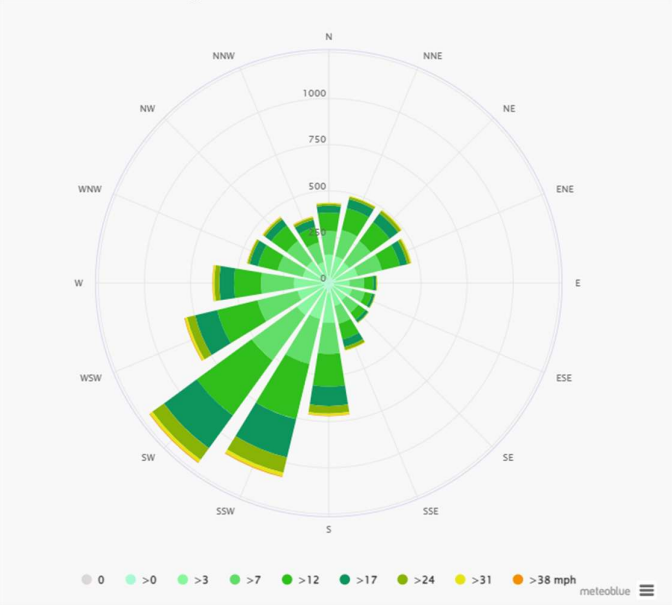


Figure 2 shows the site and broad location of the main receptors within 1km. Table 2 provides a description of those receptors and the distance and direction from the site. The distance has been measured from the permit boundary, at the closest point. The receptors list and plan have been derived from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

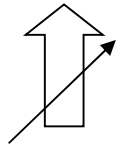
In terms of the sensitivity to dust the following has been adopted:

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.

[3] Simulated historical climate & weather data for Shoreham-by-Sea - meteoblue

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.



South Westerly
Wind Direction

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	140m South
Shoreham Port	C	Industrial	Low	Immediately South, East and West
Aggregate Processing	D	Industrial	Low	530m West
Aggregate Processing	E	Industrial	Low	220m North West
Industrial Estate	F	Industrial	Low	310m North West
Industrial Estate	G	Industrial	Low	180m North
Fishersgate Terrace	H	Residential	High	530 North West
Industrial Estate	I	Industrial Estate	Low	65m North
Kingsway	J	Residential	High	160m North East
Western Esplanade	K	Residential	High	485m South East
Wish Park	L	Recreational	Medium	835 North East
Hove Lagoon	M	Recreational	Medium	660m East
Middle Street	N	Residential	High	230m North West
A259	O	Road	Negligible	150m North
Train line	P	Railway	Negligible	710m North
St Marys Primary School	Q	Education	High	645m North West
Vale Park	R	Recreational	Medium	475m North West
Kingsway	S	Residential	High	125m North East

3.3 Risk Assessment and Control Measures

The waste will be stored in a bulk storage facility, which will be housed inside a building. The building is enclosed on four sides, with two vehicular entry points, plus pedestrian fire escapes.

Within the building, there will be concrete push walls to contain the glass.

The storage of waste inside a building will prevent windwhip.

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.

There will be a temporary storage area to facilitate the export of glass. This comprises of a 3m high concrete wall, in an east-west orientation. This will act as a wind break, preventing any dust leaving the area. The waste glass will only be transferred to this area when the export process is due to begin. The crane will be positioned on the north side of the wall and will contain the waste.

EWC191212 mixed waste containing glass, is the only waste code that could have a potential to generate odour. 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.

Silica Developments Limited has operated from the port since 2012, 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).

In terms of the source-pathway-receptor linkage, the following applies:

Source: There are no odorous chemicals used at the facility.
There are no volatile gaseous chemicals associated with the facility.
There are no point sources emissions to air.
There is minimal amount of residual waste in the mixed waste, that would be of sufficient volume to generate odour.

Pathway: There is no stack emission.
Waste stored within a building.
Receptors No nearby sensitive receptors.
No history of complaints
No requirement for masking agents.

There are no complete pollutant linkages associated with this facility.

3.4 Routine Cleaning

The bays will be cleaned following a transfer period. That is, when a ship has been loaded and the bay cleared of waste. This is recorded by the operator in the site diary.

The cleaning schedule is provided in Table 3.

Table 3 – Cleaning Schedule

	Daily *	Weekly	Annually
Site Entrance	✓	✓	
Site Access	✓	✓	
Storage Bays – concreted	✓	✓	Full site Audit
Plant	✓	✓	Subject to Planned Preventative Maintenance

*carried out by SPA as part of their overall function of maintaining the Port.

The SPA site management team also has access to the CCTV, which is monitored throughout the day.

This cleaning schedule is implemented at the frequencies set out in Table 3.

The TCM will follow up any complaints or incidents with a full inspection.

3.5 Odour Monitoring

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

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

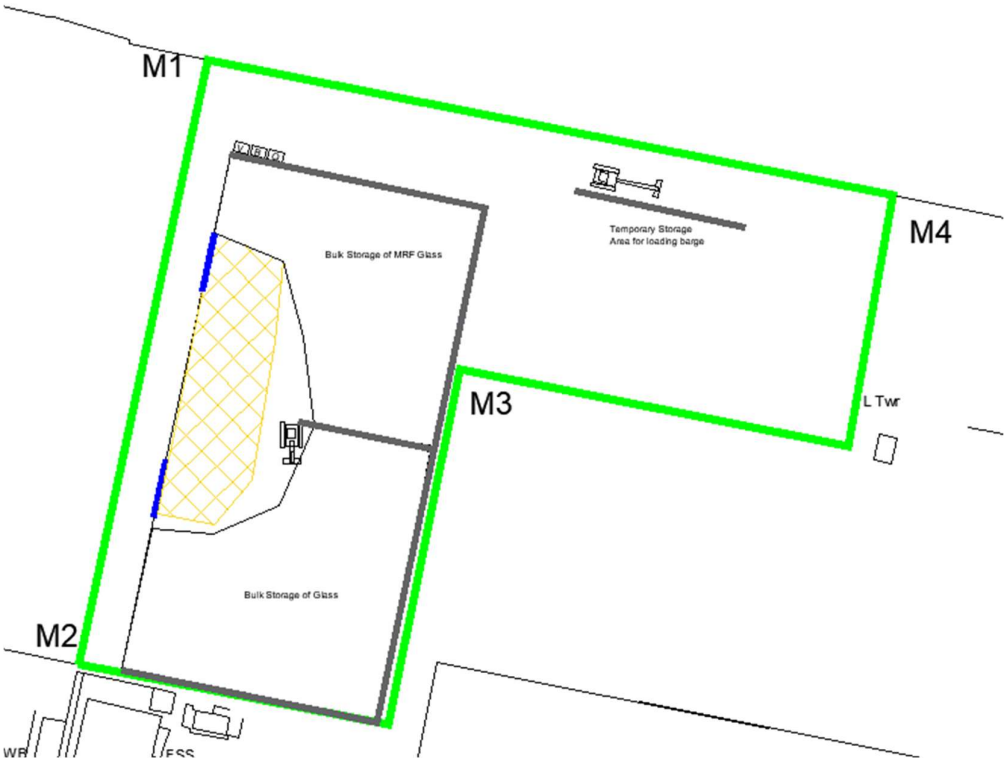


Table 4 – Monitoring Locations.

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.

The Local Environment Agency officer will be contacted by email if odour has been detected. The email will include information about the timing, source, corrective action taken. SDL will notify the Environment Agency within 24 hours of the odour being detected.

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.

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 Complaint Form in Appendix A will be completed.

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 compliant 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.

Silica Developments Limited has been based at the port since 2012, 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.

Appendix A – Complaint Form

Incident/Complaint Details	
Nature of Incident / or Complaint	
Location	
Date and Time of Incident/Complaint	
Details of complainant (if possible)	
Plant and Machinery involved? (Make/Model, Vehicle Registration, Driver/Operator)	
Other Vehicles involved?	
Witnesses	
Investigation Details	
Investigation carried out by -	
Position -	
Date & time investigation carried out -	
Incident/Complaint Description -	
Cause of Incident / Complaint-	
Report to Senior Management and if necessary, the Environment Agency	
Feedback given to Staff -	
Feedback given to Complainant -	
Date feedback given -	
Review and Improve	
Improvements needed to prevent a reoccurrence -	
Proposed date for completion of the improvements -	
Actual date for completion -	
Does the EMS need to be updated? -	
Date that the EMS was updated -	
Closure	
SDL manager review date	
SDL manager signature to confirm no further action required	