

1. Introduction

This Odour Management Plan (OMP) has been prepared in accordance with SEPA Odour Guidance (2025)¹ and relevant BAT requirements for waste treatment installations^{2,3}. It sets out the structured approach used by TWMA Peterhead to identify, assess, control, monitor, and respond to odour emissions.

The plan follows the SEPA-recommended framework:

- Source identification
- Pathway and receptor assessment
- Control measures (prevention and abatement)
- Monitoring and assessment
- Complaints and incident response
- Continuous improvement

2. Site Activities and Odour Sources

2.1 Site Activities

The facility treats oil-based drilling waste and oily slops through thermomechanical and physico-chemical processes. Odour arises primarily when heating releases VOCs and oil-based compounds.

2.2 Odour Sources

Point Sources

- RotoMill vapours
- Slops processing units
- Condensers and separators

Fugitive Sources

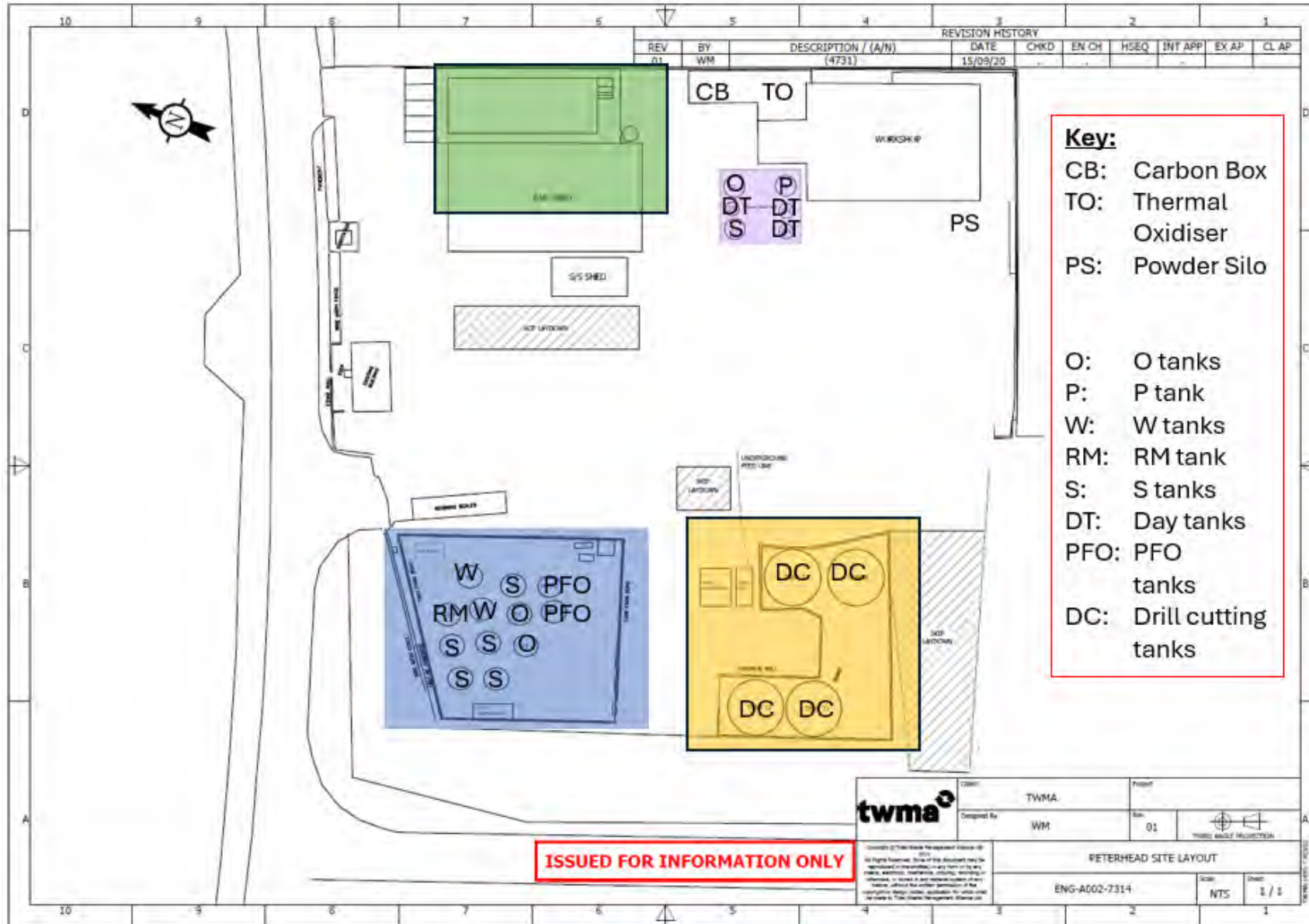
- General building air
- Material handling and transfer
- Maintenance activities

Minor Sources

- Tank farm vents
- Drill cuttings storage

The following diagram depicts the site layout and odour sources:

6.5.4 Odour Management Plan (OMP) TWMA Peterhead facility 2026



Odour sources and method of abatement

Sources		Control Measures
Point Sources	RotoMill vapours	• Enclosure of process equipment within building • Reduction of emission points • Abated by thermal oxidiser
	Slops processing units	• Enclosure of process equipment within building • Reduction of emission points • Abated by thermal oxidiser
	Condensers and separators	• Enclosure of process equipment within building • Reduction of emission points • Abated by thermal oxidiser
	Evaporator	• Abated by thermal oxidiser
	Powder silo	• Abated by bag filter
Fugitive Sources	General building air	• Carbon adsorption abatement
	Material handling and transfer	Drill cutting received in lidded bins Slops received via tanker and stored in vertical tanks within tank farm
	DAF plant	Potential for emissions during inspection / maintenance activities
	Maintenance activities	Process maintenance conducted within process shed, where practicable
Minor Sources	Tank farm vents	Passive vent carbon filter O3, RM1, P1, W2 typically saturate carbon most frequently – review underway following consultant recommendations to thoroughly evaluate options increased monitoring and maintenance for these tanks and potential improvements (i.e. monthly VOC measurements for O3, RM1, P1 & W2) Report due to SEPA end February 2027
	Drill cuttings storage	Diffuse emission from open tanks

3. Pathways and Receptors

3.1 Pathways

- Airborne dispersion via stacks and fugitive emissions
- Short-range ground-level transport under low wind conditions

3.2 Receptors

- Residential properties approx. 200 m north of site (most sensitive)
- Industrial neighbouring units

4. Odour Risk Assessment

Odour risk is assessed considering:

- Frequency of emission
- Intensity of odour
- Duration of release
- Meteorological conditions
- Sensitivity of receptors
- Highest risk is associated with process vapours during thermal treatment.

5. Odour Control Measures (BAT)

5.1 Prevention and Minimisation

- Enclosure of process equipment within building
- Reduction of emission points
- Coordination of deliveries and processing

5.2 Containment and Collection

- Full enclosure of odour-generating assets
- LEV system achieving ≥ 2 air changes per hour
- Extraction capacity $\sim 15,000 \text{ m}^3/\text{hr}$

5.3 Abatement

Primary Abatement – Thermal Oxidiser

- Direct-fired thermal oxidiser
 - 900 - 1000°C
 - ≥ 2 second residence time

Secondary Abatement

- Carbon adsorption for fugitive emissions

6. Operating Procedures

6.1 Normal Operation

- All odorous processes operated with extraction and abatement
- No routine operation without abatement

6.2 Start-up and Shutdown

- Thermal oxidiser pre-heated before introduction of emissions
- Controlled shutdown to minimise emissions

6.3 Maintenance

- Scheduled preventative maintenance
- Environmentally Critical Items checklist (reported annually to SEPA under permit condition 3.2) – inspections increased following recent incidents.
- Alignment with ISO 14001 systems

7. Monitoring and Assessment

7.1 Routine Monitoring

- Daily odour checks using FIDOL principles
- Daily housekeeping, roller doors closed (except for forklift access), valves / hatches on all process assets remain closed except for active inspection / sampling (Requirements re-briefed following recent incidents via TWMA-0537-COMM HSEQ Alert)
- VOC monitoring via PID instruments – permitted limit 20 mg/M³

Source	Frequency	Limit	Recorded
Carbon Box inlet	Weekly	No limit	TWMA-462-Tanks farm Daily report
Carbon box outlet	Weekly	20 mg/M ³	TWMA-462-Tanks farm Daily report
Vertical tanks	Quarterly	20 mg/M ³	TWMA-462-Tanks farm Daily report

7.2 Periodic Monitoring

- TVOC and dust (6-monthly)
- Third-party odour surveys and modelling

7.3 Performance Criteria

- 1.0 ouE/m³ (98th percentile at receptors)
- <1000 ouE/m³ at stack

8. Odour Monitoring

Internal work instruction, TWMA-603-WI-Odour Monitoring – Peterhead provides direction on daily odour monitoring to be recorded in the following internal template, TWMA-808-F-Odour Record.

Offsite odour monitoring is conducted on Team Forms (see Appendix for copy of template), reactive tours require meaningful monitoring i.e. more than 10 minutes monitoring at sensitive locations.

9. Complaints Management

9.1 Logging

All complaints recorded and tracked

9.2 Investigation

- Review operations and logs
- Site inspection and monitoring

9.3 Response

- Timely response to SEPA
- Communication with complainants where appropriate

9.4 Review

- Trends analysed at HSEQ meetings
- Corrective actions implemented

10. Abnormal Events and Contingency

10.1 Short-Term Measures (to be deployed until carbon abatement box can be configured to function as effective contingency abatement)

- Cease site activity where thermal oxidiser is unavailable - shut down site operations systematically:
 - RotoMill engine: lower boost to slow processing
 - RotoMill shut down
 - Evaporator shut down
 - Slop shut down

10.2 Medium-Term Measures

- Deployment of temporary abatement systems – third party hire units
- Increased monitoring

10.3 Long-Term Measures

- Expansion of abatement network (where technically feasible)
- Process optimisation

11. Incident Management

- Emergency procedures under ISO 14001
- Controlled shutdown in event of failure
- Incident reporting and corrective action system

12. Training and Competency

- Staff trained in odour awareness and monitoring
- Use of FIDOL methodology
- Competence tracked through training systems

13. Roles and Responsibilities

- Site Manager: overall compliance
- HSEQ Team: monitoring, reporting, training
- Operations Team: day-to-day control measures

14. Continuous Improvement

- Phased enhancement programme (Phase 1 & 2)
- Review of monitoring and modelling
- Engagement with specialist consultants
- Consideration of contingency for heat waves i.e. increased risk of offensive odour in higher temperatures. Consider appropriate colour for storage tanks to reflect light / heat when replacing / repainting tanks to mitigate future weather patterns.

15. Review of Plan

This OMP will be reviewed:

- Annually
- Following complaints trends
- After significant process changes
- After monitoring or modelling updates

16. Summary

This OMP adopts a SEPA-aligned, structured approach to odour management, incorporating:

Source–pathway–receptor assessment

BAT-compliant abatement (thermal oxidation)

Robust monitoring and complaint handling

Defined contingency and improvement processes

This ensures effective prevention of odour nuisance and protection of nearby receptors.

References

1. [ind-g-011-odour-guidance.docx](#)
2. [COMMISSION IMPLEMENTING DECISION \(EU\) 2018/ 1147 - of 10 August 2018 - establishing best available techniques \(BAT\) conclusions for waste treatment, under Directive 2010/ 75/ EU of the European Parliament and of the Council - \(notified under document C\(2018\) 5070\)](#)
3. [Best Available Techniques \(BAT\) Reference Document for Waste Treatment Industrial Emissions Directive 2010/75/EU Integrated Pollution Prevention and Control](#)

Appendix – Offsite Odour monitoring Team Form Template



1. General Information

Conducted On

Site Location

General weather conditions

Location



57.493134, -1.818828

Prepared by (Initials)

1. Processes

What processes are working at the time of the audit?

☐ Rotomill
☐ Slops
☐ Evaporator
☐ Tanker Operations
☐ Maintenance

Note / Comments

2. Wind

What is the wind direction at the time of the inspection?

☐ North
☐ North East
☐ East
☐ South East
☐ South
☐ South West
☐ West
☐ North West

What is the wind speed?

3. Maintenance

Is there any maintenance being undertaken at the time?

- ☐ Yes
☐ No

Note / Comments

Photo(s)

Transport

Are there any trucks being unloaded?

- ☐ Yes
☐ No

Note / Comments

Photo(s)

Other Operations

Are there any other operations on-going on site that may have an impact on odour?

- ☐ Yes
☐ No

Note / Comments

Photo(s)

Monitoring Location 1

What is the location being used?

- ☐ On site or at boundary only
☐ Short distance from boundary but not impacting any sensitive receptors (<25m)
☐ At nearby sensitive receptors (<250m)
☐ In wider locality out with immediate area of site (<500m)
☐ Widespread, affecting large areas

Please complete time

Location

57.491734, 1.818928

A Google Map of the Peterhead area in Scotland. The map shows the A90 road running vertically on the left. To the right of the road, there are several locations marked with pins: Glenugle (blue pin), TWMA Peterhead (blue pin), Box Pool Solutions (blue pin), Davidson's Blast Services (blue pin), and Nickall Training Services (red pin). The map is labeled with 'Glenugle', 'A90', 'Peterhead Way', 'TWMA Peterhead', 'Box Pool Solutions', 'Davidson's Blast Services', and 'Nickall Training Services'. The Google logo is in the bottom left corner, and 'Map data ©2026' is in the bottom right corner.

Please take photos of the area

What is the Intensity of the Odour?

☐ 1 - No detectable odour

☐ 2 - Faint odour (barely detectable need to really inhale)

☐ 3 - Moderate odour (detectable when breathing normally)

☐ 4 - Strong odour

☐ 5 - Very strong odour (causes nausea)

Note / Comments

Do you need to add another monitoring location?

☐ Yes

☐ No

Do you need to add another monitoring location?

☐ Yes

☐ No

Do you need to add another monitoring location?

☐ Yes

☐ No

Do you need to add another monitoring location?

☐ Yes

☐ No

Signature