WRM

— Make it Possible —

ENVIRONMENTAL PERMIT MANAGEMENT SYSTEM

Environmental and sustainability solutions provided to PLATER CHEMICALS LTD

This report was prepared by Walker Resource Management Ltd (WRM') within the terms of its engagement and in direct response to a scope of services. This report is strictly limited to the purpose and the facts and matters stated in it and does not apply directly or indirectly and must not be used for any other application, purpose, use or matter. In preparing the report, WRM may have relied upon information provided to it at the time by other parties. WRM accepts no responsibility as to the accuracy or completeness of information provided by those parties at the time of preparing the report. The report does not take into account any changes in information that may have occurred since the publication of the report. If the information relied upon is subsequently determined to be false, inaccurate, or incomplete then it is possible that the observations and conclusions expressed in the report may have changed. WRM does not warrant the contents of this report and shall not assume any responsibility or liability for loss whatsoever to any third party caused by, related to, or arising out of any use or reliance on the report howsoever. No part of this report, its attachments or appendices may be reproduced by any process without the written consent of WRM. All enquiries should be directed to WRM.

Document Title	Environmental Permit Management System
Client	Plater Chemicals Ltd
Revision	v1.0
Date	05/03/2026
Document Reference	EPR-B01
Project Reference	1359/J05

Author: John Cordall	Reviewer: Martin Ropka

Copyright ©

All material on these pages, including without limitation text, logos, icons and photographs, is copyright material of Walker Resource Management Ltd (WRM). Use of this material may only be made with the express, prior, written permission of WRM. This document was produced solely for use by the named client to whom the document refers. The methodology (if any) contained in this report is provided to you in confidence and must not be disclosed or copied to third parties without the prior written agreement of WRM. Disclosure of that information may constitute an actionable breach of confidence or may otherwise prejudice our commercial interests.

REVISION LOG

Revision	Details	Date
0.1	Initial draft	24/10/2024
0.2	Internal review	20/12/2024
0.3	Draft update	27/10/2025
0.4	Draft update following client review	16/12/2025
0.5	Draft update following second client review	26/02/2026
1.0	First issue	05/03/2026

CONTENTS

1.0 INTRODUCTION

This Environmental Permit Management System (EPMS) has been prepared by Walker Resource Management Limited ("WRM") on behalf of Plater Chemicals Limited ("Plater Chemicals") in accordance with The Environmental Permitting (England and Wales) Regulations 2016 ("EPR Regulations"). This Management System sets out the considerations and procedures that are relevant to the operation of Plater Chemicals' inorganic chemicals manufacturing facility, including their directly associated gas boiler, located at Plater Chemicals, High Street West, Glossop, Derbyshire, SK138ES (the "Site"). This Management System details the nature of the Site, relevant Site and infrastructure works, methods of operation and environmental controls.

1.1 Permitted Activities

Plater Chemicals are currently permitted to undertake the following activities at the Site:

- Section 4.2 A(1)(a) (iv) – *Producing inorganic chemicals such as salts for example ammonium chloride, potassium chlorate, potassium carbonate, alkali metal fluoride, sodium carbonate, perborate, silver nitrate, cupric acetate, ammonium phosphomolybdate.*

- Section 5.3A(1)(c) (i) - *Disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day by biological treatment.*

2.0 SITE DETAILS

2.1 Site Address

Plater Chemicals Limited
High Street West, Glossop
Derbyshire
England
SK13 8ES

2.2 Operational Location

Site Grid Reference: Easting 402356, Northing 394290

2.3 Description

The Site is located off Dinting Ln (works entrance) or High St W (visitor entrance). The Site is approximately 1 kilometre to the west of the town of Glossop, Derbyshire. The area surrounding of the Site comprises a mix of industrial, commercial and residential premises.

The Site currently consists of (but is not limited to) several processing buildings, one gas boiler, seven carbon filters, one dust filter, one hydrochloric acid gas scrubber, one ammonia gas scrubber and a surface runoff water tank. The main production and storage facilities comprise 3 and 4-storey stone and metal-clad structures.

The Site is designed to accept a range of raw input materials which are processed within enclosed buildings to produce inorganic chemical Metal Salts through a range of processes including (but not limited to) Spray Drying, Spray Cooling, Fluid Bed Drying, Vacuum Drying, Calcining and Granulation. The Site produces a range of inorganic chemical Metal Salts, although the largest outputs by mass are Monosodium Phosphate and potassium products. Inorganic chemical Metal Salts produced at the Site are supplied to companies across the UK and Ireland. The Site has an annual maximum capacity of up to 8,600 tonnes per annum.

Plater Chemicals assess all proposed changes that impact the operational health and safety performance and or risk including new products, services and processes; and, changes to existing products, services and processes.

2.4 Plans

Reference Drawing: *Appendix A Site Plan*.

2.5 Permits and Licences

Plater Chemicals currently has a bespoke environmental permit, reference BS3158IR, to operate the Site with related activities.

2.6 Planning Permission

The Site operates under an existing planning permission.

3.0 OPERATIONAL OVERVIEW

3.1 Production of Inorganic Metal Salts

The existing operations at the Site comprise of the acceptance of input materials and the manufacture of inorganic chemical Metal Salts. This activity is designated as an A1 installation activity within the Environmental Permitting Regulations (EPR). The Site also disposes non-hazardous waste water. This in itself is also an installation activity.

Table 1 – Permitted Activities

Activity listed in EPR Regulations	Description	Limits on Specified Activity
Section 4.2 A(1)(a)(iv) Producing inorganic chemicals such as salts for example ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate, cupric acetate, ammonium phosphomolybdate.	Production of inorganic chemicals such as salts for example ammonium chloride, potassium chlorate, potassium carbonate, alkali metal fluoride, sodium carbonate, perborate, silver nitrate, cupric acetate, ammonium phosphomolybdate.	Receipt of input materials to despatch of finished product.
Disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day by biological treatment	The disposal of non-hazardous waste in a facility with a capacity of more than 50 tonnes per day by biological treatment, not being treatment specified in any paragraph other than the paragraph D8 of annex IIA to Council Directive 75/442/EEC, which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to B12 of that annex (D8).	Operation of effluent treatment plant solely for the materials produced on site.

The Site stores Ethylene based solvents and has a storage capacity for the Ethylene based solvents of approximately 50 tonnes. This is significantly below the threshold of 8,000 tonnes of Ethylene storage to be considered as a part B activity, as stated within section 4.8 of the EPR.

3.2 Permitted Input Materials

The existing permit is for the production of inorganic chemicals such as salts for example ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate, cupric acetate, ammonium phosphomolybdate.

The Site has no specific limits on the type or quantity of incoming input materials. However, Plater Chemicals assess all proposed changes to Site operations that impact the operational health and safety performance and/or risk profile of the Site, including (but not limited to) the introduction of any new products, services and processes; and, changes to existing products, services and processes. Any significant change to Site operations will initiate a review of this EPMS, and Emissions Monitoring Plan (EMP), as appropriate.

3.3 Gas Boiler

The Site hosts a Ruston Thermax Two gas fired boiler which is used to satisfy the heating demands of the Site, including the spray dryers and cooler. The boiler has a control system with an alarm. A trained Site operative starts the boiler at 4am on Monday morning and shuts the boiler down on Friday morning. The boiler is not operational during weekends. The gas boiler has a net thermal input rating of 16,000lb of steam per hour, equivalent of 5.3MWth. As such, the boiler is permitted in line with Schedule 25A of the Environmental Permitting Regulations Exhaust gas from the gas boiler is released to the atmosphere via a stack, which has a height of 15 metres.

3.4 Hours of Operation

The Site operational hours are presented in Table 2, below.

Table 2 -Site Operating Hours

Time Period	Operating Hours
Monday to Friday	6am Monday to 5pm Friday
Saturdays and Sundays	Closed
23/12 – 02/01	Closed
Other Bank Holidays	Open as per Monday – Friday times

3.5 Staffing

Plater Chemicals shall ensure that a sufficient number of Site staff, who are suitably trained and competent, are present at the Site at all times during the Site operating hours to manage and operate the Site safely and in accordance with this EPMS. Site staff must be fully familiar with the requirements of the Permit to the extent that is relevant to their specific duties. The roles and responsibility of Site staff shall be clearly defined and communicated. The number and role of Site staff is presented in Table 3, below.

Table 3 - Site Staff

Role	Number
Management	1 Site Manager; 1 x Planning Manager; and, 3 x Shift Managers
Administration	8
Operators	22
Other	10
Total	**45**

The Site is operated under the control of our experienced Production Manager. Furthermore, the day-to-day responsibility of running the Site rests with the Production Manager. The Site has a total of 45 staff. Staff numbers are maintained at a level sufficient to operate and supervise Site operations, including periods of planned and/or unplanned staff absence, such as from sickness or annual leave.

Appropriate and clean personal protective equipment (PPE) is provided to all Site operatives who are also required to practice good sanitation and health habits. Plater Chemicals has specific guidelines relating to personal hygiene while handling input materials. The H&S Manager undertakes training programmes which enhance their overall process manufacturing knowledge.

The Site is operated 24 hours per day, 4 days per week and is open from 0600hrs Monday until 1700hrs Friday. The operational activities associated with Site operations is delivered by a team of 22 Site operatives. Tasks include (but are not limited to) managing the receipt of input materials, operating processing equipment, operating other fixed and mobile plant and machinery, and managing the storage and the removal of outputs from Site. The gas boiler

does not require a full-time operator and is designed specially to require low levels of daily operations/maintenance.

3.6 Technical Competence

The Production Manager and all Site operatives are appropriately trained and will be conversant with the requirements of this EPMS, with particular attention to:

- operational controls;
- maintenance procedures;
- record keeping;
- awareness of regulatory implications of the permit;
- awareness of all potential environmental affects from the operations;
- emergency action plan and prevention; and,
- notification to regulatory authorities.

A copy of the Environmental Permit and this EPMS will be kept at the Site office and will be readily available for reference by Site staff, other company staff, and regulatory authorities.

Plater Chemicals maintains an updated organisational chart and all staff have specific duties recorded in written job descriptions. Training is conducted regularly by qualified instructors. Regular training records are maintained and assessed periodically.

A designated person will hold a suitable qualification in order to operate the Site compliantly (see Table 4 below). The suitably qualified person's actual attendance hours on the Site will be recorded in the Site Diary.

Table 4 - Technical Competence Qualifications

Name	Qualification
Production Manager	30 years' of operational experience.

Any changes in technically competent management at the Site, and/or the name of any incoming personnel, together with any evidence that such personnel has required technical competence, shall be submitted to the Environment Agency within 5 working days of change in management. No Site operations shall take place unless there is sufficient, trained and competent staff on Site.

3.7 Site Identification Board

In conformance with the EPR Regulations and this EPMS, Plater Chemicals shall display a clear, all-weather, easily readable Site Notice at or near the entrance to the Site. The Site Notice shall contain the following information:

- Company Name;
- Permit Holder's Name;
- Emergency Contact Name;
- Permit Holder's Telephone Number;
- Statement that the Site is permitted by the Environment Agency; and,
- The Permit Number.

The Identification Board shall be inspected at least once per week. In the event of damage or defect, the board shall be repaired or replaced within three working days.

3.8 Site Security

The key security measures currently present at the Site can be summarised as follows:

- CCTV covers the main areas of the Site;
- access points are gated and locked when the Site is not in operation;
- the Site frontage is fenced with barbed wire;
- the north, east and south perimeter of the Site is also planted with hedges to prevent unauthorised access; and,
- the south perimeter of the Site has the Glossop Brook separating the Site from residential premises, with access to the Site only possible via a bridge which is gated and locked when the Site is not in operation.

All security measures will be subject to visual inspection by a trained Site operative. Any defects will be recorded in the Site diary and rectified in the appropriate manner. The Site boundary is checked on a regular basis for damage or signs of attempted entry. Any attempted damage or signs of attempted entry that are identified during the visual inspection are entered in the Site diary and any damage is repaired at the earliest opportunity. All visitors will be required to sign in at the Site Office on arrival and exiting the Site.

3.9 Relevant Convictions

There are no convictions in place. In the unlikely event of the Permit Holder or a relevant person being convicted of any relevant offence, the full details will be provided to the Environment Agency within 14 days of the conviction in addition to details of any appeal.

3.10 Change of Operator's or Holders Details

The following information shall be notified in writing within 5 working days to the Environment Agency:

- Any change to the Permit holders trading name;
- Any steps taken with a view to the Permit holder going into administration; and,
- Any change in the operators trading name, address, registered name or registered office address.

3.11 Maintenance of Financial Provision

Plater Chemicals will make financial provision to meet the obligations of the Permit.

3.12 Notification of Operations

Any additional preparatory works required as a result of the issuing of a new Environmental Permit or Site improvement shall be notified to the Environment Agency. The Permit holder shall give no less than 7 days' prior notice of any changes to the EPMS.

3.13 Commencement of Cessation of Operations

In the event of any future cessation and subsequent re-commencement of the use of the Site for operations, the relevant authorities would be notified in writing specifying the date of any such cessation or re-commencement.

3.14 Notifications

Except where otherwise specified, all submissions to the Environment Agency shall be in writing. These correspondences shall include the permit reference number and the name of the permit holder.

4.0 SITE ENGINEERING

4.1 Access and Parking

The Site has two main access points:

1. the works entrance and public weighbridge, located off Dinting Ln; and,
2. the visitor entrance, located off High St W.

4.2 Site Office

The Site office is located adjacent to the weighbridge at the southeastern section of the Site. A printed copy of the environmental permit and EPMS will be held in the Site office. Toilets, washing and mess facilities are provided.

The following information and equipment will be kept in the Site office:

- Environmental Permit;
- Management System;
- Emissions Management and Monitoring Plan;
- Current Site diary;
- Visitor’ s book recording all visitors to the Site;
- First aid kit;
- Conditions of Site use for employees, visitors and contractors;
- In-house inspection sheets/monitoring forms;
- Accident book and first aid kit.

4.3 Operational Area

A weighbridge is located at the southeast of the Site adjacent to spray dryers (bag filter emissions point) and to the northeast of the boiler house.

All vehicles delivering input materials to the Site are directed along the south and southeastern boundary of the Site to the weighbridge area which is located adjacent to the spray drying facility and the main Site office. The driver of the vehicle is required to sign in at the weighbridge office. Following this, the delivery vehicle is directed to the appropriate section of the Site to offload materials where they will be met by an appropriately trained Site operative.

Bulk storage vessels are located across the Site and therefore there is not a single reception point for the associated incoming materials. Conversely, intermediary bulk containers (IBCs) shall be delivered to shed 4 and 5. Vehicles delivering IBCs will be directed northwards through the centre of the Site, follow the road anticlockwise immediately to the west and then southwest towards the entrance point to the relevant stocking point. Only bulk liquid tankers will be required to weigh both in and out.

The production area is located mostly in the centre and north of the Site. The production process is undertaken within 14 enclosed buildings, with the Site footprint covering a cumulative area of approximately 20,500m2. The processing technology includes (but is not limited to) a combination of reactors, spray dryers, spray coolers, vacuum dryers and blenders.

In addition to the production buildings, the Site has a number of stocking points and storage sheds located to the north, south and west of the Site. The stocking points are used for the receipt of IBCs. All input materials and products are housed within storage vessels, intermediary mixing vessels and intermediary bulk containers (IBC's).

The location of storage vessels, storage areas, production areas and stocking points are clearly labelled within Appendix A Site Plan. Plater Chemicals shall ensure that the Site Plan is kept up to date.

Effluent created on the Site is captured within the drainage system before being directed into the effluent treatment plant. The effluent first enters a series of settling tanks in which particles with higher densities than water settle to the bottom. The effluent settling tanks are used to remove suspended solids from the surface runoff before further PH adjustment prior to discharge to the foul sewer. The effluent drainage system has a capacity of 200,000 litres.

4.4 Emissions Release Point Mitigation

The Site has a range of infrastructure to control and mitigate potential emissions from storage vessels, mixing vessels; as described in sections 4.5 to 0, below. The emissions to air release points at the Site derive from the following sources:

i. Gas boiler;
ii. Carbon filters serving the acetic acid storage tanks;
iii. Bag filter serving the calciner plant;
iv. Sodium hydroxide scrubber serving the hydrochloric acid tank; and,
v. Sulphuric acid scrubber serving the ammonia tank.

vi. Cooling tower

The site also has a water release to foul sewer from the on-site effluent treatment plant.

4.5 Carbon Filters

Each acetic acid storage vessel is connected to a carbon filter through which acetic acid vapours are filtered prior to being released to air. Activated carbon is highly porous, which gives it a large surface area for adsorbing acetic acid vapours from the efflux. The carbon filter effectively controls the air quality at the point of release.

Management of the carbon filters includes performance monitoring and the establishment of a maintenance schedule. The carbon filters are regularly inspected for signs of damage, such as cracks, clumping, or degradation of the carbon material. Furthermore, the area directly surrounding the carbon filters is regularly checked to ensure that it is kept clear of dust and debris.

The carbon filter system undergoes regular inspection, monitoring and maintenance to ensure optimal performance and therefore the following frequency of monitoring shall be undertaken:

- The air quality released by the carbon filter shall be monitored frequently through Draeger tubes installed downstream of the carbon filters. Visual checks are undertaken daily to check whether a colour change within the tube has occurred. The colour change is read against a scale on the tube to quantify concentration levels. If the concentrations levels increase, this indicates that the carbon filter requires changing;
- A visual inspection of the carbon filter will form part of a weekly visual inspection and cleaning schedule, checking the carbon filter for signs of damage and removing the build up of any dust or debris; and,
- The air quality released by the shall be monitored on an annual basis to ensure that the emissions are below the emission threshold of acetic acid vapours as stated within the Site environmental permit.

The results of inspections will be recorded on the Site Check Sheet and any remedial action on the carbon filters shall be undertaken as necessary. Plater Chemicals shall replace the carbon filters when required to ensure that the carbon filters maintain their effectiveness. Through replacing carbon filters, this ensures that they do not reach saturation point and lose

their ability to adsorb acetic vapour acid. Carbon filters are replaced where indicated through monitoring of the Draeger Tubes.

The removal and replacement of carbon filters may only be undertaken by a fully trained Site operative(s), in accordance with the manufacturer's instructions our OHSAS Manual (document reference: PG-OHSAS-001).

Table 5 – Critical Limit Management Approach for the Carbon Filters

Potential Issue	Monitoring	Critical Limits	Process Controls	Records
Concentration of acetic acid vapours being released to air increases beyond critical limits	Continuous - Draeger Tubes	Colour change in Draeger tube	Replacement of carbon filter	Site Check Sheet

4.6 Sodium Hydroxide Scrubber

The hydrochloric acid storage vessel is connected to a sodium hydroxide scrubber which treats the air displaced from the storage vessel during filling and emptying serving to effectively reduce the levels of hydrogen chloride being released to the atmosphere. When sodium hydroxide reacts with hydrochloric acid, they undergo a neutralisation reaction.

Management of the sodium hydroxide scrubber includes performance monitoring and the establishment of a maintenance schedule. The sodium hydroxide scrubber components such as the piping, seals, tanks and spray nozzles shall be regularly inspected for signs of damage, such as corrosion, leaks, and clogs within the spray nozzle that may reduce scrubbing efficiency and efficacy. The sodium hydroxide scrubber shall also be regularly checked for the build-up of solids and salts that may precipitate in the scrubber.

The sodium hydroxide scrubber system requires regular inspection, monitoring and maintenance to ensure optimal performance and therefore the following frequency of monitoring will be undertaken:

- Continuous monitoring of the scrubber solution pH level. This monitoring system is alarmed if the PH level reduces below the critical limit for pH;

- A weekly inspection of the condition of the sodium hydroxide scrubber components shall be undertaken and recorded within the Scrubber Weekly Inspection Form, which shall also be used to record and any remedial action as necessary; and,
- The air quality released by the sodium hydroxide scrubber shall be monitored on an annual basis to ensure that the emissions are below the emission threshold of hydrogen chloride as stated within the Site environmental permit.

The results of inspections will be recorded on the Site Check Sheet Form alongside any remedial action taken as necessary. Plater Chemicals shall ensure that the sodium hydroxide scrubber solution is regularly replaced to ensure that the scrubber maintains its effectiveness.

The removal and replacement of the sodium hydroxide scrubber solution may only be undertaken by a fully trained Site operative(s), in accordance with the manufacturer's instructions and our OHSAS Manual (document reference: PG-OHSAS-001).

Table 6 - Critical Limit Management Approach for the Sodium Hydroxide Scrubbers

Potential Issue	Monitoring	Critical Limits	Process Controls	Records
pH level of scrubber solution dropping and becoming more acidic and affecting the level of adsorption of hydrochloric acid	Continuous – alarmed.	PH level < 11	Replacement of sodium hydroxide scrubber solution.	Site Check Sheet

4.7 Sulphuric Acid Scrubber

The ammonia storage vessel is connected to a sulphuric acid scrubber which treats the air displaced from the storage vessel during filling and emptying serving to effectively reduce the levels of ammonia gas being released to the atmosphere. Acidic solutions are used to remove

alkaline components, e.g. ammonia. The dosing of the acid is done by means of pH regulation.[1]

Management of the sulphuric acid scrubber includes performance monitoring and the establishment of a maintenance schedule. The sulphuric acid scrubber components such as the piping, seals, tanks and spray nozzles shall be regularly inspected for signs of damage, such as corrosion, leaks, and clogs within the spray nozzle that may reduce scrubbing efficiency and efficacy. The sulphuric acid scrubber shall also be regularly checked for the build-up of solids and salts that may precipitate in the scrubber.

The sulphuric acid scrubber system requires regular inspection, monitoring and maintenance to ensure optimal performance and therefore the following frequency of monitoring will be undertaken:

- Continuous monitoring of the scrubber solution pH level. This monitoring system is alarmed if the PH level increases above critical limit for pH;
- A weekly inspection of the condition of the sulphuric acid scrubber components shall be undertaken and recorded within the Scrubber Weekly Inspection Form, which shall also be used to record and any remedial action as necessary; and,
- The air quality released by the sulphuric acid scrubber shall be monitored on an annual basis to ensure that the emissions are below the emission threshold of ammonia as stated within the Site environmental permit.

The results of inspections will be recorded on the Site Check Sheet and any remedial action taken as necessary. Plater chemicals shall ensure that the sulphuric acid scrubber solution is regularly replaced to ensure that the scrubber maintains its effectiveness. The removal and replacement of the sulphuric acid scrubber solution may only be undertaken by a fully trained Site operative(s), in accordance with the manufacturer's instructions, our OHSAS Manual (document reference: PG-OHSAS-001) and the Sulphuric Acid SOP (Appendix C).

Table 7 - Critical Limit Management Approach for the Sulphuric Acid Scrubbers

Potential Issue	Monitoring	Critical Limits	Process Controls	Records

[1] Best Available Techniques (BAT) Reference Document for Common Waste Gas Management and Treatment Systems in the Chemical Sector., Industrial Emissions Directive 2010/75/EU (Integrated Pollution Prevention and Control)

pH levels rising and becoming less acidic and affecting the level of adsorption of ammonia gas	Continuous and alarmed	Alarmed is pH > 4	Replacement of sulphuric acid solution if pH levels above critical limit.	Site Check Sheet

4.8 Bag Filter

A bag filter is deployed on site to capture dust produced through the processing of catalyst material in the calciner plant. Fabric filters, often referred to as bag filters, are constructed from porous woven or felted fabric through which gases are passed to remove dust (including PM10 and PM2.5). Removal efficiencies for dust typically range from 95 % to more than 99.9 %.[2]

Management of the bag filter includes the establishment of a cleaning and maintenance schedule. The bag filter components such as the exterior of the baghouse, ductwork, and seals shall be regularly inspected for signs of damage, leaks, or dust buildup, which may indicate worn or damaged filter bags or seals. The condition of the bag shall be regularly checked for wear, tears, abrasion, or holes.

When working at maximum capacity the bag filter will require regular inspection, monitoring and maintenance to ensure optimal performance and therefore the following frequency of monitoring will be undertaken:

- Air flow is monitored continuously to measure the difference in pressure on either side of a dust filter. A high-pressure drop often indicates that a filter is clogged or inefficient and would highlight to the Site manager that the bag filter requires replacing;
- A weekly inspection of the condition of the bag filter components shall be undertaken and recorded within the Bag Filter Inspection Form, which shall also be used to record and any remedial action as necessary; and,

[2] Best Available Techniques (BAT) Reference Document for Common Waste Gas Management and Treatment Systems in the Chemical Sector Industrial Emissions Directive 2010/75/EU (Integrated Pollution Prevention and Control). 2023.

- The air quality released by the bag filter shall be monitored on an annual basis to ensure that the particulate emissions are below the emission threshold as stated within the Site environmental permit.

Plater Chemicals shall ensure that the bag filters are replaced as required to ensure that the filter maintains its effectiveness. The replacement of bag filters may only be undertaken by a fully trained Site operative(s), in accordance with the manufacturer's instructions and the principles of our OHSAS Manual (document reference: PG-OHSAS-001).

Table 8 - Critical Limit Management Approach for the Bag Filters

Potential Issue	Monitoring	Critical Limits	Process Controls	Records
Wear, tears, abrasions or other form of damage to the bag filter, meaning that particulate matter is not filtered effectively.	Visual inspection; and, monitoring of air flow; and, monitoring of dust concentration.	Notable tears / damage identified through visual inspection; or, Notable change in pressure differential; or, Dust emissions concentrations exceeding critical limit of [30mg / m^3]	Repairs to the bag filter material or replacements of the bag filter if damage is significant.	Site Check Sheet

4.9 Gas Boiler

The Ruston Thermax Two gas boiler is housed within the boiler house located to the southwest of the weighbridge. The gas boiler has a net thermal input rating of 5.3MWth. The gas boiler is used to satisfy the heating demands of the Site, including the spray dryers and cooler. The boiler has a control system with an alarm. A trained Site operative starts the boiler at 4am on Monday morning and shuts the boiler down on Friday morning.

Boiler technical information is provided within Table 9, below. The emission concentration is presented in Table 10.

Table 9 - Gas Boiler Technical Specification

Gas Boiler Technical Information	
Make	Ruston Thermax Two
Model	L/TTP/241
Thermal Capacity	5.3 MWth
Efficiency	90%
Variable Heat Load	Yes
Control System	Dunphy Radiotronic 6,000 Series
Stack Height	15 metres

Table 10 – Gas Boiler Emission Concentration of NOx

Substance	Emission concentration (mg/Nm^3)
NO_x	200

4.10 Cooling Tower

The cooling tower provides cooling water to the site's processes. The only emissions from the cooling tower is that of water vapour.

4.11 Drainage and Containment System

The Site operates a drainage and containment system to handle all water types on Site. Please The Site operates a drainage and containment system to handle all water types on Site. Please refer to Appendix B - Drainage Plan.

All drainage systems will be regularly inspected and maintained by the Site manager and recorded in the Site diary at least on a weekly basis. The Production manager will inspect and instruct the cleaning of building gutters, gullies and drains at regular intervals. The effluent treatment plant and transfer pumps are routinely serviced. Building roofs are routinely checked for holes/damage.

Only sealed IBC/s and drums are stored outside of buildings and solid input material/product is stored in a designated warehouse. As such, there is no dirty water generated on Site.

All storage tanks are located in bunded areas. Local containment includes sumps and pumps that transfer effluent off Site. The whole Site is bunded. Falls channel surface water to drainage channels. All production buildings have drainage channels around their perimeter.

Furthermore, all areas of the Site are engineered to drain to the existing fully contained drainage system.

The Site has several effluent settling tanks located adjacent to the boiler house. As effluent enters the tank, particles with higher densities than water settle to the bottom. The effluent settling tanks are used to remove suspended solids from the surface runoff before further pH adjustment. The effluent drainage system has a capacity of 200,000 litres.

These arrangements ensure that under all weather conditions, no water from the Site runoffs directly into water courses or groundwater and is treated through the effluent settling tanks and PH adjustment.

5.0 SITE PROCEDURES – PRODUCTION

Plater Chemicals has a full set of SOPs which are included as part of their ISO Accredited 9001 Management System. Please refer to the Plater Group Quality Management Manual (document reference PG-QMS-001). Two example SOPs are included as Appendix C Sulphuric Acid SOP and Appendix D High Speed Agitator SOP.

6.0 SITE PROCEDURES - INPUT MATERIALS RECEPTION AND ACCEPTANCE

This section details Site procedures for the receipt of input materials onto the Site. This includes pre-acceptance, acceptance, inspection and traceability.

6.1 Pre-Acceptance: Input material

All input materials undergo pre-acceptance procedures prior to being delivered to the Site. Plater Chemicals shall provide a written specification of the input materials and documented procedures covering collection, transportation and delivery. Contractual agreements shall specify criteria for acceptance or rejection of loads delivered for processing. If material is coming from a supplier with whom Plater Chemicals has no previous trading experience, a representative of Plater Chemicals may, where practical, visit the supplier in advance to check that the material is of the correct form.

Plater Chemicals shall ensure that the carrier delivering the material possesses a valid Accord Dangereux Routier (ADR) certificate or equivalent. Before delivery of materials, the suppliers shall confirm the following in advance to Plater Chemicals:

a) The form and estimated mass of material;
b) The form of container in which it is to be transported; and
c) The existence of ADR certification.

6.2 Input material Reception

The Site will only accept input materials from known sources. Personnel shall ensure that the Site has the required number of qualified staff present to manage the materials acceptance and rejection procedures (if necessary). Personnel shall ensure that the Site has capacity to store and process any input materials. Personnel shall ensure that the Site will not exceed Permit conditions by accepting any input materials that are beyond any such limits imposed by the Site Environmental Permit.

All incoming vehicles will enter the Site via the existing off Dinting Lane Site entrance and shall proceed to the Site weighbridge. The driver of the vehicle is required to report to the weighbridge office, located adjacent to the weighbridge. Documentation, including (but not limited to) safety data sheets will be checked by the Site operative, to ensure that the input materials are in accordance with the pre acceptance documentation, comply with the materials permitted by the Planning Permission, Permit Regulations or any subsequent updates.

For any material arriving on Site, a record is kept of:

- Date and time of material delivered;
- Type of material;
- Weight of load;
- Vehicle registration number; and,
- Haulier and ADR certification number.

6.3 Bulk Liquid Inspection

Key bulk liquid such as acetic acid and potassium hydroxide shall be tested before it can be offloaded. Following the driver signing in at the Site weighbridge, the vehicle shall be directed to wait outside of the Site laboratory where a sample of the bulk liquid shall be taken and analysed on Site. The laboratory testing shall be sufficient to determine that the load conforms to all end user, regulatory and Site-specific requirements, such that the input materials:

i. match the type of material as indicated by the safety data sheet;
ii. Contains no material for which Plater Chemicals has no licence or permit to handle; and,
iii. Contains no material deemed unacceptable under the he terms of the agreement between supplier or unsuitable for the material's end use.

Assuming the testing of the sample meets the specified requirements, the vehicle will be directed to proceed to the appropriate input material offloading area. A trained Site operative shall be stationed at the bulk liquid storage vessels to ensure that the offloading of materials is undertaken in accordance with the Site SOPs.

6.4 IBC Inspection

The Site operative shall notify the driver to proceed from the Site weighbridge to the relevant IBC offloading point where a Site operative shall be stationed to ensure the driver offloads the input materials at the correct area of the Site. Here, the input materials shall be offloaded so as not to merge / contaminate the newly deposited materials with any materials already being stored.

Where possible, visual confirmatory checks will be undertaken before offloading the IBC's where the safety of Site operatives is not compromised. Inspection must in any event be carried out immediately upon offloading input material at the Site. Without compromising safety, a Site operative shall inspect each load of IBC's deposited at the storage area as appropriate. Site conditions at Plater Chemicals, including lighting if deliveries are accepted out of daylight hours, shall allow a delivery of the material to be properly and safely inspected on receipt.

All input materials are sourced from trusted suppliers, however visual checks on all loads are made (labels of IBC's and condition of container). If there is an issue with the load then the outcome of the inspection is recorded on the Input Load Inspection Record Sheet. The visual inspection of IBCs shall be sufficient to determine, as far as is practical by visual means, that the load conforms to all end user, regulatory and Site-specific requirements, in that it:

i. Only contains material matching the safety data sheet;
ii. Contains no material for which Plater Chemicals has no licence or permit to handle; and,
iii. Contains no material deemed unacceptable under the terms of the agreement between supplier or unsuitable for the material's end use.

6.5 Material Rejection

In the unlikely event that it is found necessary to refuse to accept a particular load, a standard rejection procedure will be implemented. The material rejection procedure to be complied with will include:

- For IBC and bulk liquid loads which are rejected prior to deposit, the driver will be instructed to park the vehicle as an interim measure for closer inspection. The competent manager will be contacted by radio of the non-compliant incoming material. The provider of the input material will be alerted that the input material does

not meet the specified requirements and shall be notified if the input materials are rejected. If appropriate, the weighbridge ticket shall be amended.

- For IBC loads which are rejected following deposit, the unsuitable materials or the whole load, depending upon the degree of contamination, will be isolated. Subsequent actions will be dependent upon the reason for rejection and would be similar to those outlined above. If deemed safe to do so, the material will be moved to the quarantine stocking point, located adjacent to the container loading bay. The supplier shall be informed by telephone and email with a digital photo included as an attachment. The competent manager will be contacted by radio prior to the rejected materials being removed safely from the Site. The weighbridge ticket shall be amended as appropriate.

All rejected loads shall be recorded using the Site's *'Rejected Loads Record Sheet'*.

6.6 Input Materials Measurements

The quantities of all material input will be measured by means of the Site's weighbridge. Electronic records will be made of the loaded and unloaded weight of each vehicle (in tonnes) delivering bulk liquids, together with type of material of each load. The weighbridge is subject to regular maintenance and calibration checks.

6.7 Traceability

A record system shall be maintained connecting sources of materials with delivery dates and weights. This is achieved via the use of a weighbridge system and the information / documentation collected for every load of input material that arrives across the weighbridge.

7.0 FURTHER PROCEDURES

7.1 Plant Maintenance

The Site operates a strict maintenance regime and equipment used is of sufficient capacity to allow down time for routine maintenance and servicing as recommended by the manufacturer. Maintenance activities are managed via a maintenance calendar. Maintenance of the plant shall include all plant, buildings and equipment concerned with the control of emissions to air. Equipment shall be operated as per manufacturer guidance to ensure proper use.

Any newly arrived or hired equipment is subject to scrutiny to ensure it meets the standards required by both the company and current legislation.

Major services for the gas boiler are undertaken by a third party to ensure effective control of emissions. This includes a 13-month regulatory inspection as part of the insurance and legal requirement which is undertaken by the boiler operations insurer. Routine maintenance of the boiler is undertaken internally.

All breakdowns or incidents involving plant or equipment are entered in the Site diary. Daily checks are undertaken on all plant and equipment, including tanks, vessels, processing infrastructure and boiler. Routine maintenance is recorded and, in addition, daily maintenance logs will be completed during the working day to assess any damage or general wear to infrastructure. Spares and consumables that are subject to continual wear shall be held on-Site or identified as available at short notice from guaranteed local suppliers, to ensure that any plant breakdowns can be rectified rapidly.

7.2 Training

All training is managed via the Site's EMS Training Matrix. No plant may be operated unless full instructions, training and supervision have been given by a person competent to do so. Staff shall be made aware of their responsibilities under the permit through training and reference to this document.

To minimise risk of emissions, particular emphasis in training staff at all levels is given to control procedures during start-up, shutdown and abnormal operating conditions. Staff shall be trained on actions to take when there are abnormal conditions or accidents that could result in emissions. This training shall be delivered periodically to relevant operatives.

7.3 Dust

The following actions will be taken to prevent or minimise dust emissions:

- Dust emissions to air at emissions release points are mitigated using bag filters which filter particles > 1 micron. Emissions monitoring is carried out (annually), where concentration of dust is assessed against the emission limit value for dust as stated within the Site environmental permit.
- Dust generation attributable to vehicle movements will be controlled by the maintenance and sweeping of the Site access road.
- The Site Manager or nominated trained Site operative will carry out a daily visual assessment of dust emissions within the Site. In the event of a potential or actual dust nuisance being identified, then appropriate remedial actions will be implemented as

soon as practicable, with the most effective action likely to involve additional water spraying of the source of the dust emission.

- The results of the daily inspections and any remedial work will be recorded in the Site Diary. Any complaint, which is received, will be reported to the Environment Agency.

7.4 Mud and Debris

The entire working area is surfaced by impermeable concrete or hardstanding. All materials processing takes place in enclosed structures on impermeable surfacing with sealed drainage. The Site manager carries out a daily Site checklist for mud and debris of the access road and within the Site boundary.

Any vehicle leaving the Site will be checked to ensure that they are clear of loose material and that loads are secure. Where necessary, vehicles will be cleaned before leaving Site.

In the event that mud or debris is deposited onto public areas, by action or inaction, that material will be cleaned as soon as practicable and the cause of the mud/debris escape investigated and remediated.

7.5 Pests

Measures shall be implemented and maintained throughout the operational life of the Site to control and monitor the presence of pests on the Site. An inspection of the facility for pest infestations shall be carried out at regular intervals by the Site manager and shall be recorded in the Site diary.

7.6 Noise and Vibration

Emissions from the Site activities shall be free from noise and vibration levels likely to cause pollution outside the Site. A health and safety noise risk assessment for the Site has been undertaken, with the latest revision in 2021.

Suitable measures will be implemented and maintained throughout the operational life of the Site to ensure noise emanating from the Site is minimised. All equipment used at the Site will be appropriately silenced. All vehicles, equipment and plant will be switched off when not in use. All vehicles, equipment and plant will be maintained with a clear intention to reduce noise and vibration levels.

Any noise monitoring carried out and remedial action taken will be recorded in the Site Diary and will be reported to the Environment Agency.

In the event of noise or vibration problems or a complaint being received, details will be recorded in in accordance with the EMS Complaints procedure.

8.0 RECORDS

8.1 Monitoring

Plater Chemicals shall undertake routine monitoring as specific in the Plater Group Quality Management System (document reference: PG-QMS-001).

Plater Chemicals shall maintain records of all the monitoring required, including records of the taking and analysis of samples, instrument, measurements, calibrations, examinations, tests and surveys and any assessments or evaluations made on the basis of such data.

For monitoring specific to the boiler, refer to *PLACHEM Emissions Management and Monitoring Plan.*

8.2 Permit Record Keeping

Plater Chemicals shall maintain a record of visitors, non-routine activities and other incidents within documents retained in the Site office. Records will be checked periodically by the Permit Holder to ensure their correct use and be readily available for inspection. The following activities are recorded:

- Visitors are asked to visit the weighbridge office and complete their details (name, date, time in/out, car registration number and signature) within the Visitor Book.
- Names and times of technical competent managers on Site.
- Any accidents occurring on Site are recorded within the Accident Book
- Machinery shall be visually inspected and their condition shall be recorded on the Machine Weekly Check Sheet.
- Complaints: relating to an incidence dust, pest, odour and noise problems (managed via the Site's EMS (document reference: PG-QMS-001)
- Unsuitable material shall be rejected from Site and recorded within the recorded load record sheet.
- Any incidents, including fire or spillage, that could potentially cause pollution to the environment shall be recorded in the Corrective Action Log.
- Spill kits are inspected on a weekly basis and recorded on the Site Checklist: Spill Kits record sheet.

- Incidents of dust, pest, odour and noise problems (managed via the Site's EMS (document reference: PG-QMS-001).
- Condition of Site infrastructure is inspected on a weekly basis.

8.3 Material Records

Material records are managed and logged via the Site's EMS (document reference: PG-QMS-001).

Records of all materials entering and the leaving the Site shall be recorded. All records will be filed as soon as reasonably practicable and retained securely for a minimum of three years in line with Best Available Technique. Records will be clear, legible and available for viewing (on Site). Records will be kept for all incoming and outgoing materials, including: description, date, time, weight and the name of the company delivering or collecting the material.

8.4 Reporting and Notification

Communications are managed via the Site's EMS (document reference: PG-QMS-001).

Site personnel will notify the Environment Agency without delay, following the detection of:

- Any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution.
- The breach of a limit specified in the Permit.
- Any significant adverse environmental and health effects.

Site personnel will notify the Environment Agency within 24 hours:

- Of actual or potential incidents and breaches of emissions limits.

Site personnel will notify the Environment Agency within 14 days:

- Of any change in the operator's trading name, registered names or registered offices addresses.

8.5 Training Records

Training is managed via the Site's EMS (document reference: PG-QMS-001).

Training is recorded via the Site's training matrix, forming part of the ISO 14001 Environmental Management System used on Site. Training records are kept in the Site office and are available upon request.

8.6 Complaints

Complaints are managed via the Site's EMS (document reference: PG-QMS-001).

Plater Chemicals shall decide and implement any necessary action in response to any complaints or concerns expressed by interested parties, including operatives, customers, clients and regulatory authorities.

The operator shall record the:

- Name and contact details of the person who expressed concern or made a complaint;
- Specific subject(s) of the concern or complaint;
- The source / location of where the complaint comes from;
- Date and time of the complaint;
- Nature and date(s) of any actions and checks and who carried them out;
- Nature and date of any response to the person who expressed a concern or made a complaint; and,
- Name of the person who communicated the response.

8.7 Site Processing/Operations

Records should be maintained such that all inputs are traceable. The following records will be kept:

- Input material source;
- Date of receipt; and,
- Tonnage.

8.8 Calibration

Calibration of equipment is managed via the Site's EMS (document reference: PG-QMS-001) and the Sites Calibration Policy (document reference: PG-CALP-001). All monitoring equipment will be regularly calibrated (minimum 12 monthly) by an externally verified company. This calibration will include all monitoring devices and the Site weighbridge.