

R&CE Environmental, Health and Safety Management System
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Environmental Management System Manual
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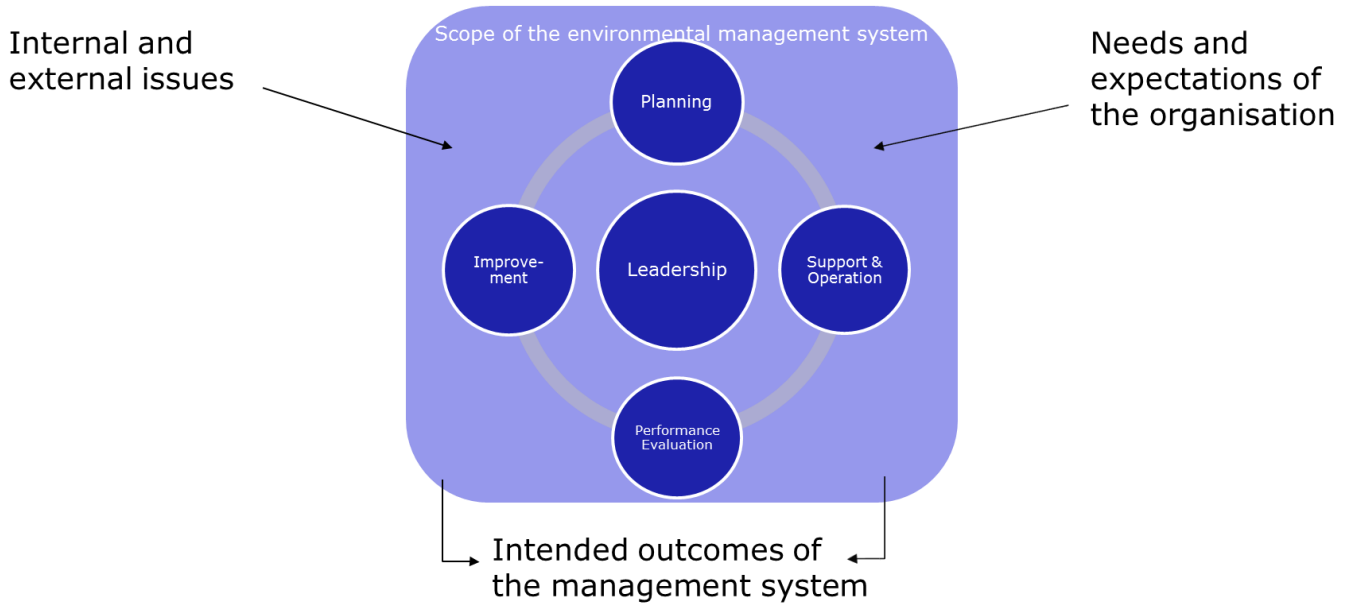
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# 1 INTRODUCTION

This Management System covers the Refining & Chemicals UK (R&C UK) Business Unit at Royston and Brimsdown sites. For the purposes of this management system these operations may be termed ‘the company’.

The EMS follows the continuous improvement PDCA model as set out in the ISO14001:2015 standard:

## Context of the organisation



## 2 CONTEXT OF THE ORGANISATION

Johnson Matthey Plc is a multinational speciality chemicals company with over 200 years of operation which operates in a diverse range of industries including; Environmental, Automotive, Chemical, Pharmaceutical, Recycling, and Oil, Gas and Refineries.

We are a technology leader in four fundamental areas of science

- Precious metals chemistry and metallurgy
- Surface Chemistry
- Materials characterisation and testing
- Material design and engineering

Our vision is for a world that's cleaner and healthier; today and for future generations.

Our Vision, Strategy and Values are defined in our corporate JM website.

Refining and Chemicals Europe sits within the recycling Efficient Natural Resources division of JM and spans the Recycling, Chemical industry sectors utilising precious metals chemistry and metallurgy with the purpose to refine secondary precious metals and produce chemical products.

The external and internal issues that are relevant to the purpose of R&CE and which affect the ability to achieve its outcomes are defined by PESTLE analysis which is completed by representatives from the EHS, Quality and strategic Management team. The output of the review is recorded in document [JMC 700 003](#). This is reviewed on an annual basis.

## 2.1 Understanding the Organisation and Its Context

The context of the organisation is assessed by the strategic management team, led by the R&CE Site Director and with input from the EHS Managers and Environmental Coordinators.

The review assesses:

- whether the issue is positive or negative
- whether it is internal or external
- how it affects the company in achieving its aims
- The significance, with:
  - 0 for No identified impact
  - +/-1 for a Minor impact
  - +/-2 for a Significant impact
- The appropriate action:
  - C to control
  - I to influence indirectly
  - M for issues to monitor

The PESTLE analysis is recorded in document [JMC 700 003](#) and is reviewed on an annual basis at the management review, or as deemed necessary by Site Director, EHS Managers or Environmental Coordinators.

*Reference ISO14001:2015 Clause 4.1*

*Understanding the organisation and its context*

**2.2 Understanding the Needs and Expectations of Interested Parties**

The interested parties relevant to the organisation, the needs and expectations are defined assessed by the strategic management team, led by the R&CE Site Director and with input from the EHS Managers and Environmental Coordinators. This is reviewed on an annual basis at the management review, or as deemed necessary by the management team, and are recorded in the table below.

Interested Party	Internal / External	Needs & Expectations	Regulatory Compliance obligations
Customers	Internal & Internal	Delivery of products or services within specification, on time. To meet compliance obligations.	None
End Users	External	Reliable performance of downstream environmental technology products which use JM and R&CE products.	None
Employees	Internal	Job security and the opportunity develop and learn. Consultation in matters which may affect them and the business. A safe and environmentally friendly work place.	None
Investors	External	Sustained return on investment. Continued growth of the company. Ethically, Environmentally and Socially responsible business practices.	None
Regulators– Environment Agency	External	Maintain compliance with Environmental Permits through compliance with BAT. Submit requests for variations or surrender of permits Report environmental performance. Report permit breaches and preventative/corrective action. Report hazardous waste consignment. To ensure continuous improvement in Environmental performance and report these.	Yes
Regulator – Local Water Authorities	External	Maintain compliance with trade effluent consents. Report trade effluent consent breaches and preventative/corrective action. Notify of changes that affect trade effluent discharges.	Yes
Regulators – Local Authorities	External	Submit planning requests for new buildings. Provide information on new processes which may impact on local air quality (via EA).	Yes
Site EHS (Royston only)	Internal	To maintain compliance with Regulatory requirements on Royston site: To communicate R&C compliance for external regulators in line with Environment Agency, Local Authority and Local Water Authority requires as above.	Yes

Interested Party	Internal / External	Needs & Expectations	Regulatory Compliance obligations
Group EHS	Internal	To Provide Annual Corporate Social Responsibility Reporting, including Energy, Waste and Carbon Emissions for GRI. To Provide Waste Packaging data. To provide production data for EU ETS and to Agree energy data for both sites EU ETS submission.	Yes
Public	External	Ethically, Environmentally and Socially responsible business practices.	None
Local Community	External	To Engage with the local community To eliminate or reduce local nuisance issues associated with the To prevent local pollution	None
Certification Bodies	External	Notification of change of scope Provide environmental compliance evidence in audits Report environmental data for certification purposes	None
Trade Association (TA) bodies. (Chemicals Industries Association Royston) (Non-Ferrous Metals Sector Association Brimsdown)	External	Share environmental performance information to effectively represent the industry sectors in consulting with regulatory bodies during revision of legislation.	None
Service Providers (Waste)	External	Notification of quantity, composition and hazard of wastes.	None
Service Provides (Freight carriers Hauliers)	External	Notification of quantity, composition and hazard of wastes.	None
Routine contractors on site (QAS cleaning, Tonners, Micormain, JHE, SE Cooling, etc)	External/Internal	Job security. A safe and environmentally friendly work place. Consultation in matters which may affect them and their business.	None
Suppliers (Energy)	External	Notification of change to energy requirements.	None
Suppliers (Water)	External	Notification of change to water use requirements.	None
Suppliers (Reagents)	External	Notification of change to reagent use requirements	None

Reference ISO14001:2015 Clause 4.2

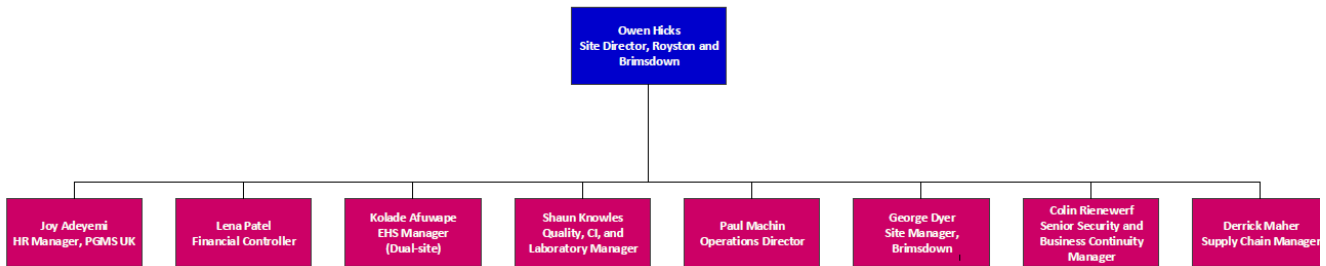
Understanding the needs and expectations of interested parties

### 2.3 Determining the Scope of The Environmental Management System

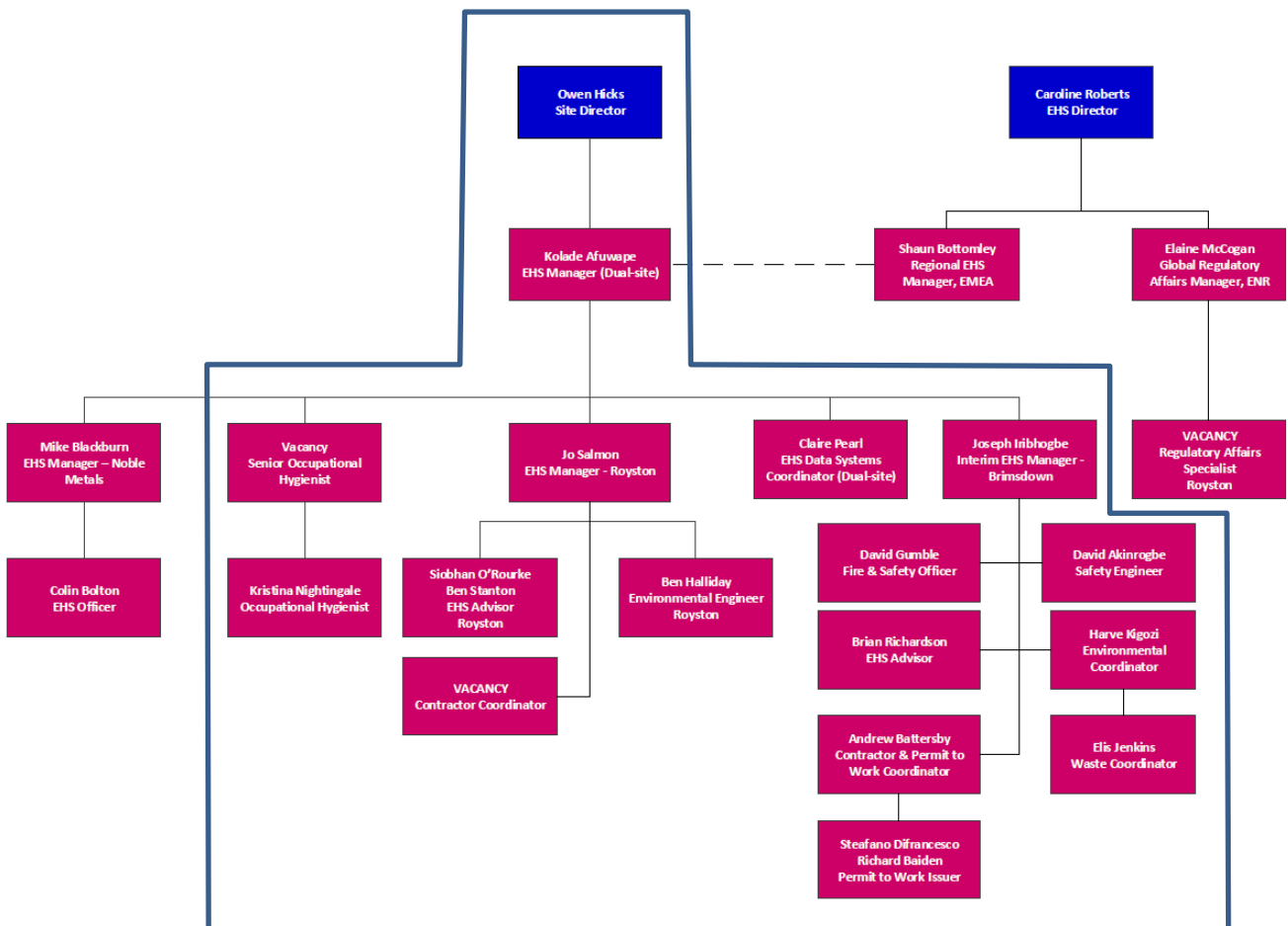
This Management System covers the Refining & Chemicals UK (R&C UK) Business Unit at Royston and Brimsdown sites. For the purposes of this management system these operations may be termed ‘the company’.

The scope document [JMC 700 000](#) describes the boundaries of the Environmental Management System (EMS) and describes the location

A full organisational chart is available from the R&CE HR department upon request, an overview of R&CE structure and an overview of the EH&S structure in R&CE are given below:



R&CE /PGMS Organisational Chart



R&CE EHS Structure inside box



The EMS is managed by the E, H & S Department and the Environmental Engineers/Coordinators at Royston and Brimsdown are the environmental representative for communications at the respective sites in accordance with BS EN ISO14001 Section 7.4.1.

The on-going work of continuous environmental improvement is managed by the EMS Reviews at the site EHS management meetings.

*Reference: ISO14001 Clause 4.3*

*Determining the Scope of the organisation*

## 2.4 Environmental Management System

The implementation of the EMS is defined this EMS manual JMC 700 001.

The maintenance of the EMS is managed by the Environmental Engineers/Coordinators and EHS Managers in accordance with section 3.3 of this manual.

The knowledge gained from the company's context review and interested parties review, as defined in section 2 of this manual, are considered when maintaining the EMS.

*Reference: ISO14001 Clause 4.4  
Environmental Management System*

## 3 LEADERSHIP

### 3.1 Leadership and Commitment

The R&CE Site Director and senior management team take accountability for the EMS and demonstrate leadership and commitment through; regular reviews at steering committee meetings and EMS review meetings; ensuring that an environmental policy is established; setting top level objectives and targets aligned to strategic business needs; reviewing progress against strategic divisional sustainability targets; Ensuring the resources needed for the EMS are available; Communicating the importance of effected Environmental Management and conforming to EMS requirements; Ensuring the EMS achieves its intended outcomes; directing and supporting persons to contribute to the effectiveness of the EMS; promoting continual improvement; supporting other relevant management to demonstrate their leadership as it applies to their areas of responsibility.

### 3.2 Environmental Policy

The Environmental, Health & Safety Policy Statement (Royston and Brimsdown Sites) is a declaration of the principles for maintaining and improving environmental performance.

It provides a framework for action and for the setting of environmental objectives and targets.

The policy is appropriate to the purpose and context of the company, including the nature, scale and environmental impacts of the Company's activities and is endorsed by senior management.

The policy is communicated to all employees and available to the public upon request.

At least once a year, the policy is reviewed and revised to reflect any changes.

Paper copies of the Environmental, Health & Safety (EHS) Policy Statement are available on request and it is also available on the Intranet.

All paper copies should be regarded as uncontrolled. Confirmation of the controlled version content can be obtained from Royston's Quality Assurance Department.

*Reference: ISO14001 Clause 5.2*

*Environmental Management System*

### 3.3 Organisational Roles and Responsibilities

The R&C UK – Royston and Brimsdown structure, together with management roles, responsibilities and authorities under the BS EN ISO9001 quality system are described in the Quality Assurance Management Manual.

Roles, responsibilities and authorities are defined, documented and communicated in order to facilitate effective environmental management.

The roles, responsibilities and authorities relating to the Environmental Management System (EMS) are communicated at all levels.

Appropriate human resources, specialised skills, technology and financial resources are provided by R&C UK – Royston and Brimsdown to ensure implementation and maintenance of the EMS.

The EMS is managed from E, H & S Department and the E, H & S Manager is the Environmental Management Representative.

All Johnson Matthey employees are responsible for minimising environmental impacts in all areas of their work.

In addition, some key personnel have been assigned further responsibilities in terms of the development of the EMS:

The Site Director (R&C UK) has overall responsibility for all environmental issues in R&C UK – Royston and Brimsdown and is responsible on a day to day basis for ensuring that:

- Adequate resources are made available and that an effective programme of improvements is implemented.
- A continuing programme of environmental improvement is part of the overall business strategy.
- Clear and effective policies and objectives are provided to ensure compliance with the Corporate Environmental Policy.
- Reviewing the EMS at least annually and authorising Objectives and Targets as appropriate.

The Operations Director (R&C UK) is responsible for ensuring that:

- The Management team have a clear understanding of their environmental responsibilities and are adequately trained and know and understand what must be done.
- All plant and equipment is designed, operated and maintained to minimise the environmental impact.
- Environmental issues form part of Departmental performance targets.
- There is an effective programme of measurement to determine the improvement in environmental performance and the reduction of the environmental impact from all forms of emissions, waste and energy.
- EMS Review Team meets as required to maintain the on-going programme of work for continuous environmental improvement.

The Operations, Department and Production Managers are responsible for ensuring that:

- Their operations comply with the environmental policies and statutory obligations.
- Operations under their control do not cause a nuisance to the public.
- All employees under their control are adequately trained, equipped, instructed and supervised.
- All plant, equipment, processes and procedures are, so far as is reasonably practicable, adequately maintained.
- All persons under their control are aware of their responsibilities to prevent, minimise and/or render harmless significant environmental impacts.
- Environmental aspects and for their Department are identified and reviewed annually or following significant changes to their Department.
- Improvement Plans (DIPs) are set annually in line with Site Improvement Plan (SIP).
- Resources are applied efficiently to the areas of greatest need.
- They report any environmental concerns to the Operations Manager.
- Planned Preventative Maintenance procedures are in place and that they are adhered to.

Technical Support staff are responsible for:

- Ensuring that compliance monitoring and reporting is undertaken in accordance with the Environmental Permitting Regulations 2010.
- Ensuring local compliance with the Environmental Permitting Regulations 2010.
- Reviewing Departmental Environmental Aspects.
- Maintaining process optimisation with respect to reagent use, energy use and waste minimisation.
- Ensuring environmental issues are appropriately accounted for in process instructions and subsequent revisions
- Training of operators in key environmental aspects of processes.

Environmental, Health and Safety Champions are responsible for:

- Communicating to management any proactive or positive idea that can improve EH&S performance
- Communicate with employees any EHS initiatives from either the Department Manager or the EHS Department.
- Attend departmental EHS meetings and provide support to the Department Manager/Team Leader
- Undertake workplace inspections as per agreed schedule with the Department Manager.
- Co-ordinate environmental monitoring, including monitoring the segregation of waste, basic energy monitoring, bund inspections and LEV checks where required with in departments
- Assist in the investigation of accidents and incidents where appropriate
- Meet with the HSE/Environment Agency

The Managers responsible for the Effluent Plants at Royston and Brimsdown are responsible for:

- Liaison with sewerage provider in conjunction with the Environmental Adviser with respect to revision and compliance with Trade Effluent Consents.
- Investigation of trade effluent excursions
- Reporting of excursions to the Environment Agency/Thames Water at the Brimsdown site or Anglian Water, via the (Royston) Site EHS team, if the Environmental Adviser or site EHS Managers are not available.

The Quality and Continuous Improvement Manager is responsible for:

- Coordinating the completion of the Divisional Sustainability budgets for R&C UK.
- Ensuring that Manufacturing Excellence savings with sustainability benefits communicated to Departmental Managers, EHS managers and Environmental Engineer to ensure benefits are captured in the divisional sustainability improvement targets and Site Improvement (SIP) and Departmental Improvement (DIP) Plans

The Head of Engineering and Engineering Managers are responsible for ensuring that:

- All plant, processes and equipment are maintained and calibrated under an effective planned preventative maintenance system to ensure optimum performance.
- All employees and contractors under their control are adequately trained, equipped, instructed and supervised.
- All persons under their control are aware of their responsibilities to prevent, minimise and/or render harmless significant environmental impacts.
- Adequate resources are assigned to the installation and maintenance of environmental control and monitoring equipment
- Any modifications to plant, processes or equipment do not compromise their environmental performance and that where appropriate such changes are notified (in advance) to the EHS Department in line with Management of Change policy requirements.
- Energy efficiency improvements are identified, scoped, prioritised and delivered in line with EMS continuous improvement plans/improvement programmes in support of divisional sustainability targets.

The Process Safety Manager is responsible for ensuring that:

- A programme of process safety review is established and implemented
- A plan of Process Safety Management review actions is coordinated on the Mirashare action tracking database
- Major accident hazard reviews are completed, and that findings and actions are raised and tracked on Mirashare.

The Project Management Manager is responsible for ensure that:

The R&C UK Project Management Procedure ([JMC 133 001](#)) is used when starting a project and an Environmental Impact Assessment is undertaken ([JMC 710 004](#))

- Statutory Environmental and legal requirements are understood and included when developing a new project.
- Ensuring that adequate monitoring equipment is installed where appropriate.
- All employees under their control are adequately trained, equipped, instructed and supervised including having a high level of awareness of the latest techniques for environmental control
- All persons under their control are aware of their responsibilities to prevent, minimise and/or render harmless significant environmental impacts.
- Operations under their control do not cause a nuisance to the public.

The Dual Site Analytical Manager is responsible for:

Ensuring the timely analysis of environmental samples as required

The personnel responsible for Quality Assurance are responsible for:

- Maintaining control of EMS documentation (Publishing and releasing copies of EMS documentation)

The Security personnel are responsible for:

- Receiving and responding, as appropriate, to public complaints received out of normal working hours

The Purchasing Manager is responsible for:

- Monitoring conformance to environmental purchasing policies
- Approving the environmental credentials of all suppliers and contractors
- Supporting the DOC audit programme

The Royston and Brimsdown Environmental, Health and Safety Managers are the designated Management Representatives for the EMS (BS EN ISO14001 Clause 4.4.1) and is responsible for ensuring that:

- The EMS is implemented and managed, and the Managing Director is kept informed of its continuing performance.
- The overall Environmental, Health and Safety performance/activities are monitored.
- A formal review of the EMS is conducted annually covering all sections of the standard. In addition, an assessment of monitoring for emissions to atmosphere and effluent against OMA criteria.
- Advice and support on local policies and procedures is provided.
- Relationships with Environment Agency (EA), Health & Safety Executive (HSE), local authorities and other regulatory bodies are maintained.
- Changes in legislation are reviewed and a Register of Legislation maintained.
- The links between the EMS, Energy Plan and the Corporate Policy are maintained.
- Ensuring that an effective emergency response plan is in place and maintained which ensures a co-ordinated course of action in the event of an emergency.
- The co-ordination of all environmental training activities and the maintenance of environmental training records
- Effluent excursions are reported to the Environment Agency/Thames Water or Anglian Water
- MCerts Management System is maintained.

The Environmental Engineers and Coordinators are responsible for advising on all day to day matters of the environment in R&C UK – Royston and Brimsdown. Duties include:

- Co-ordination of an effective monitoring service for stack emissions, ground water quality and boundary noise.
- Monitoring compliance with statutory obligations and acting if these are breached.
- Advising and liaising with other Business Units on environmental issues.
- Monitoring compliance with the Environmental Permit Regulations and ensuring reports are provided as required.
- Co-ordinating all environmental audit programmes and managing Internal EMS Audit teams
- Being the main point of contact for third party assessors, environmental enforcement agencies and for public complaints during normal working hours
- Identifying and providing access to legal and other requirements which are applicable to the environmental aspects of the company's activities, products and services
- Effluent excursions are reported to the Environment Agency/Thames Water or Anglian Water
- Ensuring compliance with Packaging Waste obligations.

The Regulatory Affairs Adviser is responsible for:

- Maintaining an information system for the classification and labelling of hazardous materials for supply
- Fulfilling the requirements of the Dangerous Goods Safety Adviser.
- Determining waste classifications
- Managing the organisation of the movements of trans-frontier shipments of waste
- Ensuring pre-acceptance review of new hazardous wastes at the Brimsdown site. –

The EHS Data Systems Coordinator is responsible for:

- Administrative support of the EMS and Environmental Permitting reporting requirements
- Coordination activities in support of EMS
- Coordinating EMS internal auditor training
- Coordination of external EMS audit
- Coordination of the internal audit programme at Royston and Brimsdown
- Completing Brimsdown EA hazardous waste returns

The Group Environment and Energy Coordinator is responsible for:

- Ensuring that the requirements of the Energy Plan are met
- Ensuring that energy data is disseminated to Environmental Representatives on a regular basis
- Producing submissions for the Climate Change Agreement (CCA), EU Emissions Trading Scheme (EU ETS) and Combined Heat and Power Quality Assurance (CHPQA) programme, as required.

The Group Environmental Coordinator is responsible for:

- Coordinating the Royston site Environmental Action plan in support of Environmental Permit compliance
- Coordinating the Duty of Care audit programme in conjunction with R&C UK purchasing for the Royston and Brimsdown sites.

The Business Development Director is responsible for:

- Ensuring environmental considerations are appropriately considered during products, processes and service development.

All employees are responsible for:

- Complying with all statutory and local obligations.
- Co-operating with Departmental management to enable them to comply with statutory and local obligations.
- Working with management in developing effective waste minimisation projects.
- Prompt reporting to management of all environmental incidents

Further responsibilities are clearly outlined in company procedures where appropriate.



## 4 PLANNING

### 4.1 Actions to Address Risk and Opportunities

#### 4.1.1 General

When undertaking Planning activities as defined in section 4.1.4 of this manual company considers:

- Issues identified in the Organisation and Context review (PESTLE) as defined in section 2.1 of the manual
- The needs of interested parties, and specifically those needs which form the company's compliance objectives
- The scope of the EMS, as defined in section 2.3 of this manual, and the EMS scope document [JMC 700 000](#).

The company considers Risks and Opportunities relevant to the organisation and context, the compliance needs of interested parties and the Environmental Aspects, as defined in section 4.1.2 of this manual, based on significance. This information is held on a *Risks and Opportunities Register* on the company's Legal Update Service (LUS) website.

LUS is available to all employees by selecting the LUS link from the R&CE webpage.

Username: refining&chemicals

Password: johnsonmatthey

#### 4.1.2 Environmental Aspects

Environmental Aspects of the company are identified by responsible managers following documented procedure [JMC 710 002](#). When identifying Aspects Normal, Abnormal and Emergency issues are considered.

The significance of Environmental Aspects and Impacts are identified by the Environmental Engineer/Coordinator and EHS managers on the LUS system in accordance with [JMC 710 002](#).

The criteria for selection of significance is stated in [JMC 710 002](#).

#### 4.1.3 Compliance Obligations

The company's compliance obligations are determined and recorded in the LUS legal register. Access to LUS is available to all Employees following the guidance in section 4.1.1 of this manual.

The legal compliance obligations related to its Environmental Aspects are determined and listed in the LUS Aspects and Impacts register.

Consideration of how these compliance obligations apply to the organisation is given in the organisation and context review and in the compliance needs of Interested parties as defined in sections 2.1 and 2.2 of this manual. These compliance obligations are considered when determining the EMS Scope, EHS Policy and Improvement plans as defined in Sections 2.3, 3 and 4.

#### 4.1.4 Planning Actions

The actions to address significant Aspects, Compliance obligations and Strategic Issues Identified in the *Risks and Opportunities Register* are recorded and tracked in the *R&CE Risks and Opportunities Register*. This includes what the actions are, who is responsible for the actions and the timeframes for delivery.

The *Risk and Opportunities Register* is managed by a senior management representative appointed by the R&CE site director. The *Context of the Organisation (PESTLE)*, the *Risks and Opportunities Register* and the planning actions are reviewed on a 2-monthly basis at every other senior management meeting.

## 4.2 Environmental Objectives and Planning to Achieve Them

### 4.2.1 Environmental Objectives

Environmental Objectives are specified by the Site Director and R&CE Top management teams. When setting environmental Objectives, the strategic issues identified in the Organisation and Context review (PESTLE), the organisations Compliance Obligations, and the organisations Significant Environmental Aspects are considered. The environmental objectives are also aligned to the Johnson Matthey corporate commitments and divisional objectives.

The strategic environmental objectives are recorded at the divisional level through the divisional sustainability budget process. In this process the commitments for key sustainability targets are agreed by the Site Director and submitted by the EHS team to the Divisional Sustainability team via shared excel files on the divisional sustainability SharePoint site. These targets include Energy reduction and water usage reduction, and the normalising production metrics are currently set as production figures for the Brimsdown Site, and Production and Sales figures for the Royston site.

The progress of each measurable is recorded on the JM Enablon system for each site on a monthly basis by the EHS teams at the Royston and Brimsdown sites.

The Environmental Objectives are measurable and normalised against production metrics to ensure a true reflection of the impact of improvements is measured.

### 4.2.2 Planning Actions to Achieve Environmental Objectives

The local departmental improvement plans have an Environmental Sustainability section where the individual department actions are recorded. These DIPs have an Environmental/Sustainability section which a strategic link to the top-level targets and Objectives agreed by the site director in the sustainability budget process.

The predicted savings are calculated in the DIPs and these are used by the Site EHS team to calculate the total normalised sustainability values for R&CE.

The DIPs and progress against plans are reviewed every 2 months, at the EHS management meeting by the Department managers and the EHS team.

Further information on the continual improvement planning process is included in procedure [JMC 1202 025](#)

## 5 SUPPORT

### 5.1 Resources

R&CE will provide the necessary resources to support the business unit environmental Management system.

Any gaps in resource requirements for any reason from strategic, planning activities, risks or opportunities, compliance obligations, interested parties' complaints or issues, staff succession or organisational change may be identified by anyone in the organisation and communicated to local management, the EHS department and senior management either directly or via structured communications channels such as the EHS management meeting or the EHS steering committee.

Requests for additional resources are made by the responsible manager with support by the EHS department. Where resources involve recruitment Human Resources policies and procedures, located on the ISO9001 Quality Management System, govern this process.

Any proposed changes in resources affecting the EMS, including restructuring or removal of a key job roll, will be subject to the R&CE management of change policies and procedures, located on the QMS, with approval from the relevant EHS manager to ensure the resource requirements to manage the EMS are not compromised.

Resource requirements to maintain the internal audit programme are reviewed on an annual basis by the Environmental Engineers and EHS Managers as stated in section 7.2.2 of this manual.

### 5.2 Competence

R&CE Royston and Brimsdown ensure that all employees performing tasks which can cause significant environmental impact are competent on the basis of appropriate education, training and/or experience.

R&CE Royston and Brimsdown have documented procedures for identifying the training needs of all employees whose work may create a significant impact on the environment to ensure they receive the appropriate training.

The training needs of individuals are identified within the R&CE Learning Management System (LMS) through Job role specifications.

In general, the Job Role specification will be made from core elements including Environmental Awareness and EHS induction, to role specific training which may include task-based training and role specific run-based training. Competence and effectiveness of training is demonstrated through a combination of ways as stated in L&D policies and procedures:

- a) Assessment test with pass criteria LMS after the training completion.
- b) Practical assessment and observation by assessor trainer for task-based training
- c) Use of externally accredited training organisation
- d) Audit programmes

### 5.3 Awareness

The company has documented procedures to make all employees aware of:

- a) the importance of conformance to all aspects of the EMS
- b) the potential or actual significant environmental aspect of their work activities and the environmental benefits of improved personal performance.
- c) their roles and responsibilities in achieving conformance to all aspects of the EMS including emergency preparedness and response requirements.
- d) potential consequences of departure from specified processes or operating procedures.

The LMS is used to provide employee declaration of awareness and understanding for key EMS documents including EHS policy and department specific environmental aspects.

### 5.4 Communication

#### 5.4.1 General

The company has documented procedures for dealing with internal and external communication of environmental issues and aspects. The procedures include a documented communications plan which details all forms of communications to internal and external interested parties.

#### 5.4.2 Internal Communication

The company has documented procedures for dealing with internal communication of environmental issues and aspects.

All communications to internal interested parties are detailed in the JM communication plan including team briefings to employees, structured EHS management meetings and use of other media to internally communicate EMS information.

#### 5.4.3 External Communication

The company has documented procedures for dealing with internal and external communication of environmental issues and aspects. The procedures include receiving, documenting and responding to relevant interested external parties.

All communications to external interested parties are detailed in the JM communication plan including regulatory reporting requirements.

## 5.5 Documented Information

### 5.5.1 General

R&CE maintains a documented system detailing the core elements and the interactive structure of the Environmental Management System (EMS).

### 5.5.2 Creating and Updating

EMS documentation is controlled and issued in the same way as for the Quality Management System.

The EMS is integrated with the Quality Management System and it is therefore important that where appropriate, requirements of the EMS are dealt with using common procedures, work instructions, forms and checklists.

### 5.5.3 Control of Documented Information

R&CE maintains procedures for controlling all documentation required by the Environmental Management System.

The procedures ensure that:

- Documentation can be located
- Documentation is reviewed, revised and approved by authorised personnel
- The latest issue of documents is available, issued at all appropriate locations
- Documentation is promptly withdrawn when obsolete
- Obsolete documents retained for legal and/or knowledge preservation purposes are suitably identified

Documented procedures are maintained for the creation and modification of documentation.

All procedures and work instructions carry issue status and issue dates, any forms will carry issue status.

## 6 OPERATION

### 6.1 Operational Planning and Control

All activities will be planned to include maintenance associated with identified significant environmental aspects and in line with policy, objectives and targets.

This is achieved by having documented procedures, which specify operating criteria, to cover activities where their absence could lead to deviations from the environmental policy, objectives and targets.

Documented procedures are also maintained to communicate relevant procedures and requirements to suppliers and contractors who supply goods or services associated with identified significant aspects.

### 6.2 Emergency Preparedness and Response

The company maintains documented plans and procedures to identify potential for and respond to accidents and emergency situations and for preventing and mitigating environmental impacts associated with them.

The company reviews and revises, if necessary, relevant response procedures following accidents or emergency situations.

Effectiveness of emergency plans and procedures are ensured through periodic testing in accordance with local site regulatory requirements.

## 7 PERFORMANCE EVALUATION

### 7.1 Monitoring, Measurement, Analysis and Evaluation

#### 7.1.1 General

The company maintains documented procedures to monitor and measure characteristics of the operations having significant impact on the environment.

Performance measures are based on recording information on relevant processes/operations, and assessment against environmental objectives and targets.

All monitoring/measuring equipment is evaluated, calibrated and maintained as necessary.

Records of calibration are held in the company calibration system.

Documented procedures are maintained to ensure monitoring measurement analysis and evaluation is completed in accordance with R&CE compliance and other requirements. A dual site compliance matrix is maintained which determines R&CE monitoring, measurement, analysis and evaluation requirements; the frequencies, the responsible people, and any interested parties that require updating.

#### 7.1.2 Evaluation of Compliance

Documented procedures are maintained to ensure periodic evaluation for compliance with relevant environmental legislation and regulation and other needs.

The compliance obligations of both the Royston and Brimsdown sites are maintained through the Legal Update Service, which is a contracted out legal register service. The legal register is a combined Royston and Brimsdown Register which allows R&CE to specify whether individual legislation applies to one or both of the sites. In addition, other non-regulatory compliance obligations are added to the register by the Environmental Engineers or EHS managers as applicable.

All legislation within the site is reviewed continually, on an ongoing basis, by LUS regulatory subject matter experts. Any changes to the legislation due in the next 6-months is featured in and "On the Horizon" section of the register. Monthly updates are sent to all R&CE LUS system subscribers which details all changes to the legislation which have passed into force, and which are due on the horizon in the next 6 months.

Evaluation of compliance is ensured through a third-party audit by the LUS audit team. The audit team visits site on an annual basis, with the Royston site and Brimsdown site hosting the audit on alternate years. The legal audit is shown on the combined ISO9001/14001 Audit programme.

Any issues found with the audit are raised as internal actions on the LUS system. Equivalent actions or Non Conformities (NCs) are raised on Mirashare as appropriate to ensure site of compliance issues through the R&CE NC management processes.

Access details for the LUS system are found in section 4.1.1 of this manual.



## 7.2 Internal Audit

### 7.2.1 General

R&CE Royston and Brimsdown maintain internal audit programmes for the assessment of the Environmental Management System

The audits are used to determine:

- a) conformance to the management system
- b) conformance with BS EN ISO14001
- c) correct implementation and maintenance

Results of the internal audit provide information to the EMS Review team.

The audit programme is based on:

- a) Environmental importance of an activity
- b) Results of previous audits

Audit procedures address full scope, frequency and methodology together with defined responsibility for conducting and reporting audits

[Internal auditors will not audit their own departments or processes to maintain independence of the audit process.](#)

### 7.2.2 Internal Audit Programme

The R&CE Royston and Brimsdown internal ISO9001/14001 audit programme is set by the EHS team, Environmental Engineers and EHS managers as applicable in conjunction with the Quality team who coordinate the ISO9001 of the audit programme [and support the ISO14001 programme.](#)

All areas of the EMS scope are audited on a risk basis with the intention to cover all higher risk areas at least once a year and loss risk areas of scope cover at least once every 3 years. The Audit programme runs for three years.

At the start of each year the ongoing audit plan is reviewed and adjusted in line with Risks and Opportunities. The resources to undertake internal audits are also reviewed at this point to determine whether any additional auditors need to be trained and added to the R&CE internal auditors.

With regards to specific compliance obligations:

Internal MCerts audits at Brimsdown for effluent flow meters are completed annually.

Audits of periodic monitoring consultants will be undertaken on both sites at least every 2 years. Audits of continuous emissions monitor operation will be undertaken at least every two years in alternate annual cycle to the monitoring consultant audit.

The criteria for each audit is set by the Environmental Engineer and laid down in the three-year audit clause criteria planner document. Core requirements of the standard, e.g. aspects, continuous improvement etc are covered in every audit, the remaining clauses of the standard are covered as necessary on a three-year rolling cycle with the intent to cover all areas of scope fully with the standard over a 3-year period.

### 7.3 Management Review

Top management shall formally review the organisation's environmental management system annually, within 1 month of the continuous improvement year end date, to ensure its continuing suitability, adequacy and effectiveness. Reviews shall include assessing opportunities for improvement and the need for changes in the environmental management system, including environmental policy and environmental objectives and targets. The Environmental, Health & Safety Manager shall retain records of the management review.

The as a minimum the agenda will include, but not be limited to:

- 1.0 Status of actions from previous management reviews
- 2.0 Review of changes in R&CE:
  - 2.1 External and internal issues that are relevant to the EMS;
  - 2.2 The needs and expectations of interested parties, including compliance obligations;
  - 2.3 Significant Environmental Aspects
  - 2.4 Risks and opportunities
- 3.0 Environmental Policy and & Manual
- 4.0 Extent of achievement of Objectives and Targets
  - 4.1 SIP
  - 4.2 DIPs
- 5.0 Review of R&CE Environmental Performance review:
  - 5.1 Non-conformities and corrective actions;
    - 5.1.1 Accidents and Incidents
  - 5.2 Monitoring and measuring results;
  - 5.3 Fulfilment of compliance obligations;
    - 5.3.1 EPR Breaches
    - 5.3.2 TE Consent Breaches
  - 5.4 Audit results;
    - 5.4.1 Internal;
    - 5.4.2 External;
  - 5.5 Adequacy of resources, people, training;
  - 5.6 Relevant communications from interested parties;
    - 5.6.1 Complaints
    - 5.6.2 Regulatory CAR reports
    - 5.6.3 Communications
  - 5.7 Opportunities for continual improvement
- 6.0 Legal and Other requirements review
- 7.0 Actions
- 8.0 AOB

The outputs from management review shall include any decisions and actions related to possible changes to environmental policy, objectives and targets and other elements of the environmental management system, consistent with the commitment to continual improvement.

The Management Review is attended by (as a minimum)

- Site Director (R&C UK)
- Operations Director (R&C UK)
- Royston EHS Manager (R&C UK)
- Brimsdown EHS Manager (R&C UK)
- Environmental Engineer (R&C UK)
- EHS Data Systems Coordinator (R&C UK)

Any of the following may optionally attend:

- EHS Advisor – Royston (R&C UK)
- EHS Advisor – Brimsdown (R&C UK)
- Operations Manager (Chemical Products UK)

*Reference: ISO14001 Clause 9.3*

*Management Review*

## 8 IMPROVEMENT

### 8.1 General

### 8.2 Nonconformity and Corrective Action

R&CE maintains procedures for dealing with non-conformity which identify responsibilities and authority for investigation and initiating corrective/preventative action. Corrective action is focussed on identifying and addressing the root cause.

Records of non-conformity actions are held on the Mirashare action tracking database. Progress on action completion against target dates are reviewed on a regular basis at the EHS management meeting and the steering committee meeting.

R&CE has a process to identify and escalate issues with overdue EHS related actions, including EMS non-conformities. Where corrective actions have not been addressed in time due to resource issues or complexity of root causes, the escalation of these issues will allow senior management to effectively resource and support the proposed corrective action.

### 8.3 Continual Improvement

R&CE maintains processes and documented policies and procedures to ensure continual improvement, as defined in this EMS Manual.

**Document Admin****DO NOT PRINT THESE PAGES****(\*) Required - Failure to complete required sections below will result in the rejection of the document by QA****Document Owner & Deputies (\*)***The owner should be the department manager. Responsibilities can be delegated as listed below.*

Title	Name
Environmental Engineer	Ben Halliday
Waste Coordinator	Elis Jenkins
EHS Manager Royston	Jo Salmon
EHS Manager Brimsdown	TBC

**Document History (\*)**

Issue	Date	Person	Change Details
1	17/07/02	D Hill/A Newton	New document
2	11/02/04	A Newton	Change Chem BU to PCT. Job title changes
3	17/12/04	A Newton	Update to include org changes in Structure & Responsibility, Management Review
4	24/03/05	A Newton/D Hill	Wording change to description of internal audits
5	14/06/06	D Hill	Update of Structure & Responsibility section
6	18/01/07	I Downie	Amend ISO references to match new standard ISO14001:2004
7	10/02/11	D Hill/N Cross/K Murray	Add description of Alfa Aesar activities, where applicable. Define scope. Amend responsibilities for Effluent Plant, Engineering, Reg. Affairs. Amend reporting for effluent excursions. Revise definition of Management Review
8	12/12/12	N Cross/K Murray	Reference Environmental Permitting Regulations 2010. Reference EH&S Champions + accountabilities. Update EHS Managers Responsibilities, EMS audit, Management review
9	21/04/15	N Cross/K Murray	Amended CCR to R&CE Amended ISO references to match new standard ISO14001:2011 General Requirements: amended ISO9001 standard Structure & responsibility: added Department Managers Management Review: amended to Refining/Products Reason: Internal audit action
10	14/01/19	B Halliday	Total re-write to comply with ISO14001:2015 standard. Amended ISO references to match existing standard Structure and responsibility: Amended for new roles; Site Director, Operations Director, Head of Engineering and Site EHS Managers. Amended responsibilities for Site EHS Managers, Environmental Engineer and Regulatory Affairs Advisor. Added new role EHS Data Systems Coordinator. COMAH responsibilities. Process Safety. Management Review: Updated content with requirement for review within month of end of continuous improvement year, updated agenda requirements and attendance list in line with External and internal Audit findings.

11	18/2/2020	B Halliday	Minor revision to clarify independence of auditor to area or process of audit, and role of Quality Team in supporting the ISO14001 internal audit programme. Removed reference to 2018-20 years' Improvement plan. Added new document admin pages and completed content. Updated R&CE/PGMS Organisation Chart.
12	11/08/2020	Z Laird	Minor admin changed – moving QMS location

**Change Authorisation (\*)**

List everyone who is required to approve the content of and/or changes to the document in the QMS website.

Title	Name
Environmental Engineer	Ben Halliday
Waste Coordinator	Elis Jenkins
EHS Manager Royston	Jo Salmon
EHS Manager Brimsdown	TBC
QA	Helen Gilchrist

**Document Admin Review (\*)**

The document owner/reviewer/author has checked the information on the pages below and updated it as required.

Title	Name	Date
Environmental Engineer	Ben Halliday	24 Feb 2020

Is signoff and/or training and competency assessment required for this new/changed document?

[Link to decision tree.](#)

**If a competency assessment is required, the owner of this document must provide the questions for the competency assessment and send to L&D.**

**Notify/Sign off/Assess decision (\*)**

This must be completed, including providing the questions if relevant, before the new/changed document is sent for approval.

What is required?	Yes	No	N/A
Nothing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Notification only (e.g. email).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Signoff to acknowledge changes in LMS.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Training and Competency Assessment in LMS.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Questions written & sent to L&D?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Personnel selected in the table below?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Terms	Meaning
<b>Notify</b>	The document reviewer/author required to send notification of document/change by email.
<b>Sign off</b>	Required to sign off to acknowledge that they have read the document or change, via LMS
<b>Assess</b>	Required to complete training via LMS and take a quiz to assess competency/understanding.
<b>Quiz</b>	To assess competency/understanding
<b>Who?</b>	See below

**(\*) Required - Failure to complete required sections below will result in the rejection of the document by QA**

**Assignment of personnel for Notification/Signoff/Assessment (if required)**

Choose the job titles for those who need to be notified or sign off against or be trained and competency assessed against this new document or document change.

SITE	Notify	Sign off	Assess	DEPARTMENTS	Select
Royston	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chemicals	<input type="checkbox"/>
Brimsdown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Smelting	<input type="checkbox"/>
Dual Site only	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Evaluation	<input type="checkbox"/>
				Labs – Brimsdown	<input type="checkbox"/>
<b>OPERATIONS</b>	<b>Notify</b>	<b>Sign off</b>	<b>Assess</b>	PGMR	<input type="checkbox"/>
Operational	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	VRP/Effluent	<input type="checkbox"/>
Non-Operational	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Fine Chemicals	<input type="checkbox"/>
				Process Catalyst	<input type="checkbox"/>
<b>Senior MANAGER</b>	<b>Notify</b>	<b>Sign off</b>	<b>Assess</b>	Dispensing	<input type="checkbox"/>
Site Director/Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Logistics – Reception	<input type="checkbox"/>
Operations Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Logistics – Stores	<input type="checkbox"/>
Labs, Quality & CI Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shipping	<input type="checkbox"/>
HR Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Purchasing	<input type="checkbox"/>
Supply Chain Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Finance	<input type="checkbox"/>
Dual Site EHS Manager	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HR	<input type="checkbox"/>
				L&D	<input type="checkbox"/>
<b>OTHER ROLE</b>	<b>Notify</b>	<b>Sign off</b>	<b>Assess</b>	QA	<input type="checkbox"/>
P to W Issuers (General)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CI	<input type="checkbox"/>
P to W issuers (Hot)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sales	<input type="checkbox"/>
P to W Issuers (Confined space)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Technical	<input type="checkbox"/>
P to W issuers (High Voltage)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maintenance – Royston	<input type="checkbox"/>
First Aiders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maintenance (Brims)	<input type="checkbox"/>
EHS Champions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Process Safety	<input type="checkbox"/>
ISO14001 Auditors	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EHS	<input checked="" type="checkbox"/>
ISO9001 Auditors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Weighing Technology	<input type="checkbox"/>
Main Site Controller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maintenance Planning	<input type="checkbox"/>
Incident Controller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Compliance Engineering	<input type="checkbox"/>
Add more if required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Production Controllers	<input type="checkbox"/>
				Supply Chain (other)	<input type="checkbox"/>
<b>Department LEVEL</b>	<b>Notify</b>	<b>Sign off</b>	<b>Assess</b>	AgT	<input type="checkbox"/>
All	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other (specify)	<input type="checkbox"/>
Operator/Analyst	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Deputy Team Leader	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Supervisor/Team Leader	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Department Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Admin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

**(\*) Required - Failure to complete required sections below will result in the rejection of the document by QA**

## Change Note

**Process document/SOP change/initiation Record (\*)**

To be completed by Change/Document Initiator

Date the Change Note information was reviewed	N/A
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Does this change:		Action required if answer is YES
Fall within scope of the Management of Change procedure ( <u>JMC 815 050</u> )	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Raise Management of Change Assessment form ( <u>JMC 814 050</u> ) MOC Reference No:
Represent a change that may be significant and require customer notification (Procedure <u>JMC 216 008</u> ): <i>(e.g. are new raw materials being used, new plant being used, new methods of manufacture etc.).</i> Has the change been assessed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Notify Customer Services, who should inform customer using form <u>JMC 114 020</u> (or <u>JMC 114 010</u> for IATF16949)  Complete a Control of change and Customer Notification Decision Record ( <u>RC 114 038</u> )

If related to this change, have the following documents been reviewed?		Action required if answer is YES <i>(reference specific document number)</i>
Risk assessments	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
COSHH assessments	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Manual Handling assessments	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Batch Records	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Procedures/Work Instructions	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Product Labels/Bar Codes	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Specifications/LIMS	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Complete Form <u>RC 114 016</u>
SWES	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
PFMEA*	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Control Plan*	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
PPAP Package*	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Audit Plan	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

\*IATF16949 specific: notify Customer Services, who should inform customer using form JMC 114 010