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0 Introduction to Chemviron Carbon Limited

Chemviron Carbon Limited is a subsidiary of Calgon Carbon Corporation, USA and deals primarily in the manufacture and supply of activated carbon products for water and air purification.

The group comprises of three UK sites based at the following location;

- i) Chemviron Carbon, Houghton-le-Spring, Tyne & Wear
- ii) Chemviron Carbon, Ashton-in-Makerfield, Wigan
- iii) Chemviron Carbon, Tipton, West Midlands

All sites are currently certified to the quality management standard ISO 9001 (Houghton-le-Spring site also meets requirements of ISO 13485) and where possible the requirements of ISO 14001 and ISO9001 have been integrated into a common management system.

Chemviron Carbon, Houghton-le-Spring, Tyne & Wear

The site is based at Rainton Bridge Industrial Estate, Houghton-le-Spring, Tyne & Wear. The main processes that are operated at the site involve the conversion of a viscose rayon into an activated charcoal textile through impregnation and subsequent furnace operations. These processes are regulated by the Environment Agency under the Environmental Permitting (England & Wales) Regulations 2007.

The site is currently registered to the quality management standards ISO 9001 and ISO13485 and where possible the requirements of ISO 14001 and ISO 9001 have been integrated into a common management system.

For the purpose of ISO14001 certification, this site is the location UK Environmental Management function.

Chemviron Carbon, Ashton-in-Makerfield, Wigan

The site is based at Ashton-in-Makerfield near Wigan and imports granular activated carbon and pellets, a portion of which undergoes further processing including impregnation with various chemicals.

The production area and support activities including warehousing, quality assurance, R & D and maintenance are based at the site. The impregnation process is regulated by the Environment Agency under the Environmental Permitting (England & Wales) Regulations 2007.

Chemviron Carbon, Tipton, West Midlands

The site is based at Tipton in West Midlands and primarily reactivates spent granular activated carbon for use in potable water and food grade applications. These operations are regulated by the Environment Agency under the Environmental Permitting (England & Wales) Regulations 2007.

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1 Context of the Organisation

1.1 Understanding the organisation and its context

Document Reference	Document Title
BUSCON	Chemviron Business Context

1.2 Understanding the needs and expectations of interested parties

Document Reference	Document Title
BUSCON	Chemviron Business Context

1.3 Determine the scope of the environmental management system

Document Reference	Document Title
BUSCON	Chemviron Business Context

1.4 Environmental management system

Chemviron Carbon Limited has established and implemented an environmental management system (EMS) which aims to continually improve and fulfil the requirements of BS EN ISO 14001.

The EMS is structured by means of the following documents:

- Context of the organisation
- Environmental Policy
- Environmental Manual
- Registers of Environmental Aspects and Environmental Legislation
- Standard Operating Procedures
- Work Instructions

Where appropriate quality documentation originally generated through the development of the quality management system have been modified to meet the requirements of ISO14001.

2 Leadership

2.1 Leadership and Commitment

Chemviron Carbon Limited bases its management upon the Business Plan which is tailored to each site. The Business Plan includes detailed Action Plans including Plans per site, an Annual Profit Plan and Environmental and Quality Plans. Business Review Meetings are held throughout the year to review the Business against the targets set in the Business Plan. The Plan is reviewed and adapted if necessary.

Chemviron management is engaging, directing and supporting each employee to contribute to the effectiveness of the Environmental Management System through a risk based thinking, promoting continuous improvement to achieve its intended results and compliance to regulatory requirements.

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2.2 Environmental Policy

Chemvicon Carbon Limited has defined their commitment to maintain and improve environmental performance within their environmental policy. The policy is approved by senior management and is communicated to all employees and is available upon request to interested parties.

The policy statement is also available to all employees via the local intranet sites. The environmental policy is assessed to ensure it remains appropriate for the needs of the organisation during management review.

Document Reference	Document Title
ENPOL	Environmental Policy

2.3 Organisational Roles, Responsibilities and Authorities

The Executive Vice President has defined the management structure necessary for effective management of the EMS and authorises the Environmental Policy.

The Senior Management of Chemvicon Carbon Limited has defined below the responsibilities of individual jobs that have an input to environmental performance.

The Senior Management also ensure that adequate resources in terms of people, skills and equipment are available to allow the proper exercise of these responsibilities.

2.3.1 Individual Site Managers

Individual Site Managers have overall responsibility for the policies and activities of Chemvicon Carbon Limited and has the ultimate responsibility for setting environmental objectives and targets.

The Site Managers are responsible for the control of the environmental aspects related to all manufacturing activities, emergency procedures, investigating incidents and ensuring that production operators receive adequate training to perform their duties in a manner where deviation could lead to environmental impact and ensuring training records are retained.

The Site Managers have overall responsibility for maintaining plant and equipment so that compliance with the EMS is observed.

2.3.2 UK Quality/Environmental Engineer

The UK Quality/Environmental Engineer is the designated Environmental Management Representative responsible for ensuring that the requirements of the EMS and associated standards are implemented and maintained.

The responsibilities of the Environmental Management Representative in relation to the EMS are:

- Ensuring that the EMS meets the requirements of ISO 14001
- Ensuring that the EMS remains up to date and that environmental records are retained
- Monitoring the progress of environmental objectives and targets
- Logging and responding to environmental communications including complaints
- Dealing with statutory bodies
- Providing environmental awareness training
- Ensuring that emissions monitoring is performed as required
- Ensuring compliance with relevant environmental legislation

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- Reporting on environmental performance at the environmental management review meeting and recommend improvements
- Ensuring appropriately licensed waste contractors are used
- Working with the Purchasing Department in collating data with respect to the Producer Responsibility Obligations (Packaging Waste) Regulations submission

2.3.3 Quality Systems Representative

The Quality Systems Representative is responsible for document control of the EMS including:

- Approval, control, distribution and revision of documentation
- Scheduling and arranging internal environmental audits
- Supplier and contractor approval and performance monitoring
- Handling of all non conformance reports, corrective and preventative actions (including waivers and internal incidents) and communicating these within the organisation

2.3.4 UK Engineering Manager

The UK Engineering Manager is responsible for engineering works associated with environmental aspects including operational controls and emission measuring instrumentation.

2.3.5 Purchasing Department

The Purchasing Department, in conjunction with the Quality/Environmental Engineer, are responsible for compiling and reporting the information required to fulfil the companies' obligations with respect to the Producer Responsibility Obligations (Packaging Waste) Regulations and liaising with the nominated agent as and when required.

2.3.6 Production Team Leaders

Production Team Leaders have direct control of all operating activities and are responsible for ensuring that their staff observes the appropriate EMS operating procedures. They are the first line of defence in the event of an environmental incident.

3 Planning

3.1 Actions to address risks and opportunities

3.1.1 General

Document Reference	Document Title
BUSCON	Chemviron Business Context

3.1.2 Environmental Aspects

Chemviron Carbon Limited has examined its activities to determine which have an impact on the environment. The results of the analysis are presented in a register of environmental aspects.

The relative significance of the various aspects is a factor that influences the selection of items for inclusion within environmental improvement programmes.

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Guidance on how to ascertain significance, rank priority and determine adequacy of operational controls are stated within the environmental risk assessment standard operating procedure.

Environmental aspects are reviewed and updated when changes occur that could potentially have an impact on the environment. This will be determined during the change review process.

Significant environmental aspects will not be communicated to external parties. If a request comes from an external party to have details of significant aspects the decision will lie with the site's Operations/Manufacturing Manager on a case by case basis.

Document Reference	Document Title
SOP213	Risk Register Assessment Procedure
Aspects (Durham)	Significant Environmental Aspects (Durham)
Aspects (Tipton)	Significant Environmental Aspects (Tipton)
Aspects (Ashton)	Significant Environmental Aspects (Ashton)

3.1.3 Compliance Obligations

Chemviron Carbon Limited has determined its environmental obligations and any relevant codes of practice applicable to its activities. The information on legal and other requirements is presented within a register of environmental legislation with reference to significant environmental aspects.

In order to keep up to date with changing and new environmental legislation, the organisation subscribes to an Environmental Compliance Service as well as receiving email updates and consulting the gov.uk website.

Document Reference	Document Title
SOP212	Evaluation of Legal Obligations
Legislation Register	Register of Legislation

3.1.4 Planning Action

Chemviron Carbon Limited shall plan to address its significant environmental aspects, compliance obligations and risks and opportunities identified. These aims are integrated within the Environmental Management systems with the appropriate resources and responsibilities allocated and time schedules set. The effectiveness of these actions will be reviewed during the Management Review Meeting.

3.2 Environmental Objectives and planning to achieve them

3.2.1 Objectives and targets

Chemviron Carbon Limited sets environmental objectives and targets that form an environmental improvement programme. Improvement objectives and targets are established for each site during management review and take significant aspects and their priority into consideration.

In setting these objectives and targets, the organisation is also mindful of:

- Context of the organisation
- The Environmental Policy
- Relevant legislation, permits and consents including compliance
- The views of any interested parties including complaints history
- Pollution prevention and resource management
- New products and processes

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The objectives and target set are measurable where possible, have designation of responsibility and a time frame in which to be accomplished.

3.2.2 Planning actions to achieve Environmental Objectives

The progress towards the achievement of objectives and targets is monitored periodically by site management and is reviewed at subsequent environmental management review meetings.

Document Reference	Document Title
SOP205	Environmental Objectives & Targets

4 Support

4.1 Resources

The management has defined a management structure necessary for effective management of the Environmental Management System as per 2.3

4.2 Competence

All permanent staff and new employees receive environmental awareness training that outlines the requirements of the appropriate permits and legislative requirements in their work area. This training includes familiarisation with the environmental policy, the significant environmental aspects at each site and introduction to the EMS. Temporary employees and contractors receive the environmental awareness statement to read and sign as confirmation that they have understood the statement and they will abide by company policy and procedures.

All employees are trained in the specific environmental impacts and responsibilities of their jobs, in emergency procedures and in the potential consequences of departing from the specific procedures. Where a job has the potential to cause significant environmental impacts, care is taken that jobholders are competent to do the job and have received adequate training. Training needs are reviewed periodically at management review, as a result of audits and through the corrective/preventive action route. The training is delivered either internally or externally dependent upon the complexity and scope with all records of training retained.

Document Reference	Document Title
Env-Aware Durham	Environmental Awareness Statement - Durham
Env-Aware Tipton	Environmental Awareness Statement - Tipton
Env-Aware Ashton	Environmental Awareness Statement - Ashton

4.3 Awareness

All persons undertaking work under the organisations control will be aware of the environmental policy, the significant environmental aspects (as appropriate) and the potential environmental impacts associated with their work.

All persons shall be made aware of their contribution to environmental management system and the implications of non conformance.

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4.4 Communication

4.4.1 General

All staff have access to the corporate intranet and site specific databases. A number of notice boards are located at each site.

4.4.2 Internal Communication

The requirements of the EMS are communicated to staff through training and the distribution of operating procedures (and work instructions). Any matter requiring immediate attention is notified to staff by management verbally or through company email system.

4.4.3 External Communication

Chemviron Carbon Limited has established procedures have been implemented for receiving, documenting and responding to communications from external interested parties on environmental subjects including complaints and requests for information.

The requirements of the EMS are communicated to staff through training and the distribution of operating procedures (and work instructions). Any matter requiring immediate attention is notified to staff by management verbally or through company email system.

All external communication is documented on the UK Environmental drive on the company server or where appropriate in hard copy.

The procedure for environmental communications applies.

Document Reference	Document Title
SOP207	Environmental Communications

4.5 Documented Information

4.5.1 General

Chemviron Carbon Limited will maintain documented information as required by ISO14001 (2015) and any other documentation deemed necessary for the effectiveness of the Environmental Management system

4.5.2 Creating and updating

The creation and updating of documents is described in Procedure SOP141.

Document Reference	Document Title
SOP141	Document Control Procedures

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4.5.3 Control of documented information

Chemviron Carbon Limited has implemented operating procedures to ensure that all documents which comprise the EMS are controlled such that;

- The location of the documents is known
- They are reviewed and revised as necessary
- They are authorised prior to release and are circulated to named people or locations as deemed appropriate
- Obsolete documents are removed from the locations where they are used
- Documents, which need to be retained for historical or legal purposes, are clearly marked as withdrawn

All documents printed from the site intranet or where documents are held on computer for direct reference, any printed copy is automatically classified as 'uncontrolled'.

Documents to be retained and their retention times are detailed in the appropriate document control record sheet.

Document Reference	Document Title
SOP141	Document Control Procedures (Durham)
202	Document Control Procedures (Tipton)
202	Document Control Procedures (Ashton)

5 Operation

5.1 Operational planning and control

Chemviron Carbon Limited has implemented operating procedures to ensure compliance with the Environmental Policy, compliance obligations, control of environmental aspects and progress the environmental objectives and targets. The adequacy of operational controls is also evaluated during aspect assessment.

Below is a list of procedures relating to environmental operational controls. For site specific production operational control documents consult the site specific Manufacturing/Operations Manager or designate.

Document Reference	Document Title
SOP201	Disposal of Controlled Wastes
SOP202	Disposal of Hazardous Wastes
SOP206-D	Waste Handling & Segregation (Durham)
SOP206-T	Waste Handling & Segregation (Tip)
SOP206-A	Waste Handling & Segregation (Ashton)

5.2.1 Emergency preparedness and response

Chemviron Carbon Limited has identified possible emergency situations have been identified and operating procedures written to keep control of the situation and to overcome any consequential environmental impacts. Where appropriate emergency conditions and actions have been identified within work instructions and operating procedures, however, where appropriate specific procedures have been developed.

When an emergency incident occurs, an investigation is conducted and an incident form completed.

Where necessary, the procedures contain a requirement for emergency action to be tested.

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Document Reference	Document Title
SOP600	Standard Emergency Procedure (Durham)
SOP404	Alarms on the Plant Effluent Station (Durham)
TIP- MS00008	Furnace Shutdown & Isolation Methods (Tipton)
E1	Standard Emergency Procedures (Ashton)

6 Performance evaluation

6.1 Monitoring, measurement, analysis and evaluation

Chemviron Carbon Limited has planned and implemented the monitoring, measurement, analysis and evaluation processes needed to:

- Demonstrate compliance with Compliance Obligations
- Ensure conformity of the Environmental Management System
- Continually improve the effectiveness of the Environmental Management system

The main monitoring and measurement procedures for each site are detailed below.

Document Reference	Document Title
SOP204	Monitoring and Reporting Requirements
SOP840	Determination of Total Suspended Solids in Effluent (Durham)
SOP841	Determination of COD in Effluent (Durham)
SOP403	Plant Effluent System – Operation of pH Meter (Durham)
SOP401	Effluent Treatment Plant – Requirements (Durham)
SOP400	Effluent Plant System – Sampling Procedures (Durham)
N/A	Maintenance Assistant (PPM System – Durham)
CP22	I+D Plant: Scrubber Operation And Chemical Unloading (Ashton)
P11	Laboratory Measuring & Test Equipment Calibration & Control (Ashton)
8-23123	Spent Carbon & Delivery (Tipton)
8-23342	Carbon Deliveries (Tipton)

6.1.2 Evaluation of Compliance

Chemviron Carbon Limited periodically evaluates compliance with all applicable legal requirements identified within the register of legislation. Compliance is evaluated through the internal audit process and can reference external sources of information such as but not limited to HSE website, Environment Agency website, Trade Associations, Environmental Publications and complaints monitoring.

The records of these internal audits shall be recorded, retained and presented during management review.

Document Reference	Document Title
SOP212	Evaluation of Legal Obligations
Legislation Register	Register of Legislation

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6.2 Internal audit

6.2.1 General

Chemviron Carbon Limited has prepared a programme of internal environmental audits which are carried out to determine that the EMS has been properly implemented and maintained and that it conforms to the requirements of the standard.

6.2.2 Internal audit programme

Chemviron Carbon Limited appoints internal auditors and arranges appropriate training. An audit schedule is prepared annually so that every audit topic is audited at least once a year; the frequency of audits depends on the importance of the topic and the outcome of previous audits. Audits are planned to examine each aspect of the relevant part of the manual and the related operating procedures and work instructions.

Auditors are also required to be alert to the environmental impact of the activities they are auditing and to draw attention to any aspect which they feel is not adequately represented or controlled in the EMS.

Audit reports are written and recommendations for corrective or preventive action are made and agreed when necessary which are implemented and followed up.

Audit findings and actions are reported to the environmental management review meetings.

Document Reference	Document Title
SOP143	Audit Procedures (Durham)
P2	Quality Systems Management and Audit Review (Ashton)
2014	Internal Audit Procedure (EN)

6.3 Management review

The site specific manager and other relevant members of the management team shall meet at least annually to review the EMS to ensure its continuing suitability for the needs and objectives of Chemviron Carbon Limited, and its adequacy and effectiveness. The meeting also sets and progresses environmental objectives and targets.

The agenda includes a review of the following items:

- Results of internal audits and evaluations of compliance with legal requirements and with other requirements to which the organisation subscribes
- Communication(s) from external interested parties, including complaints
- The environmental performance of the organisation
- Review of objectives and target complete with progress reports
- Status of corrective and preventive actions
- Follow-up actions from previous management reviews
- Changing circumstances that may including process and product developments, legislative requirements related to its environmental aspects and training requirements
- Recommendations for improvement to the EMS
- Environmental Policy, Environmental Management Manual and environmental operating procedure to ensure they are still consistent with, and relevant to, the overall policies and objectives of Chemviron Carbon Limited

Management meeting minutes detailing actions and responsibilities are distributed and followed up to completion.

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Document Reference	Document Title
SOP144	Management Review Process (Durham)
P2	Quality Systems Management and Audit Review (Ashton)
002	Management Review Procedure (EN) (Tipton)

7 Improvement

7.2 Nonconformity and corrective action

All indications of non conformance and/or incident with environmental significance are recorded and investigated, steps are taken to control any impact caused, and when appropriate and depending on the seriousness of the incident, corrective or preventive action is taken to prevent recurrence. When necessary, operating procedures will be revised or new procedures developed.

Actions are tracked according to their source;

- Housekeeping (which include environmental issues) & behavioural safety audit actions are tracked at the respective site's routine safety meetings
- Internal audit actions are tracked and logged by the respective site's Quality Managers/Coordinators
- External audit actions (inc. complaints), e.g. Environment Agency, SGS etc., are tracked and logged by the Environmental/Quality Engineer
- Actions as a result of incidents that have occurred would be tracked at the respective site's routine safety meetings

Document Reference	Document Title
SOP133	Completing NCPA/Incident Forms (Durham)
SOP138	Corrective/Preventative Action Procedures (Durham)
SOP700	Near Miss Reporting (Durham)
209	Preventive & Corrective Action Continual Improvement (EN)
P14	Corrective Action (Ashton)
D11	Corrective Action Advice Form (Ashton)
D10	Corrective Action Log (Ashton)

7.3 Continual Improvement

Chemviron Carbon Limited shall continually improve the suitability, adequacy and effectiveness of the Environmental Management system through the use of the Environmental Policy, Objectives, audit results, management review, handling of the corrective actions.

The organisation shall consider the results of analysis and evaluation and the outputs from management review to determine if there are needs or opportunities that shall be addressed as part of the continual improvement program.

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