RECYCLING INDUSTRY OPERATING STANDARD™

Prepared for ISRI Services Corporation

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CONTENTS

RIOS™ GLOSSARY I
SECTION 1: GENERAL REQUIREMENTS 1
1.1 Scope and Application 1
1.2 QEH&S Infrastructure 1
1.2.1 Management Structure 1
1.2.2 Resources and Facilities 1
1.2.3 Document and Recordkeeping Controls 1
SECTION 2: POLICY 2
SECTION 3: PLANNING 3
3.1 Identifying the QEH&S Footprint 3
3.1.1 Important Environmental Impacts and Health & Safety Risks 3
3.1.2 Legal, Product, and Other Relevant Requirements 3
3.2 Improvement Planning 3
SECTION 4: IMPLEMENTATION 4
4.1 Training 4
4.2 Communication 4
4.2.1 Internal Communication 5
4.2.2 Customer Communication 5
4.2.3 Supplier Communication 5
4.2.4 Contractor Communication 5
4.2.5 Interested Party Communication 5
4.3 Operational Controls 5
4.3.1 Customers 6
4.3.2 Suppliers 6
4.3.3 Contractors 6
4.4 Emergency Preparedness 6
SECTION 5: CHECKING AND CORRECTIVE ACTION 6
5.1 Monitoring and Measurement 6
5.1.1 Supplier Qualification and Verification of Raw Materials 7
5.1.2 EH&S Compliance 7
5.1.3 Maintenance and Calibration of Monitoring Equipment 7
5.2 Nonconformance and Corrective and Preventive Action 7
5.2.1 Control of Nonconforming Product 7
5.3 QEH&S Management System Audits 7
SECTION 6: MANAGEMENT REVIEW 8
ANNEX A A-1

(Henceforth in this document, the trademark symbol, "™", has generally been omitted from each "Recycling Industry Operating Standard™" and "RIOS™" for clarity.)

RIOS GLOSSARY

ACCIDENT

An unexpected event resulting in damage or harm to human health and/or the environment.

ACTIVITY

A company operation or process that has actual or potential environmental impacts or health & safety risks.
Example activity: metal shredding

AUDITOR

An independent party (may be internal to the organization or external) that periodically evaluates the QEH&S management system's conformance to RIOS and the proper establishment of the QEH&S management system.

CONTINUAL IMPROVEMENT

Process of enhancing the QEH&S management system to achieve overall improvements in quality, environmental, health & safety performance, in line with the RIOS Member Company's policy(ies).

CONTRACTOR

A person or business that contracts to perform work or provide a service to a RIOS Member Company.

CONTROL

Means used to ensure that the environmental impacts and health & safety risks are effectively prevented or minimized and that quality goals are met. Controls may include written procedures, signs, training, checklists.

CORRECTIVE ACTION

The implementation of solutions resulting in the reduction or elimination of an identified nonconformance or incident.

CUSTOMER

A person or business that purchases a product from a RIOS Member Company.

CUSTOMER REQUIREMENT

A need or expectation of the customer.

DOCUMENTS

An electronic or paper format that describes intended actions or provides guidance.

EMERGENCY SITUATION

A situation that results from an incident or accident often involving a fire, explosion or spill and has the potential to result in damage or harm to human health and/or the environment.

EMPLOYEE An individual performing work for a RIOS member company who is on the payroll of the RIOS Member Company.
ENVIRONMENTAL IMPACT Any change to the environment, whether adverse or beneficial, wholly or partially resulting from the organization's activities, products or services.
FOOTPRINT An overview of a RIOS Member Company's QEH&S baseline. It provides an assessment of the relationship between the company's activities, products and services, the potential risks and impacts and the expectations and requirements of interested parties.
GOAL Qualitative or quantitative objective set to achieve improvements in QEH&S performance.
HEALTH AND SAFETY RISK The possibility of harm or loss to an individual's health & safety. Risk considers both the probability that a hazard will cause harm and the consequences of that harm.
INCIDENT An unplanned event such as fire, loss of material, mix-up of material, operational problem, chemical exposure, vehicle accident, damage to property, spill or unplanned release, employee or other personnel exposure. Incidents resulting in harm to human health or the environment are considered accidents.
ISRI SERVICES CORPORATION The organization administering RIOS.
INTERESTED PARTY Individual or group (internal or external to the organization) that is concerned with or affected by the QEH&S performance of RIOS Member Companies. Interested parties can include customers, employees, suppliers and contractors, regulators, neighbors, etc.
LEGAL REQUIREMENT Law or regulation that RIOS Member Companies are required to abide by.
MANAGEMENT REPRESENTATIVE Individual responsible for ensuring the QEH&S management system is established, implemented and maintained in accordance with RIOS.
MANAGEMENT REVIEW Periodic evaluation by Senior Management of the QEH&S management system operation.

MONITORING AND MEASUREMENT The process of keeping track of key operating characteristics of QEH&S performance.
NONCONFORMANCE The non-fulfillment of a QEH&S requirement.
OPERATING CRITERIA Standards or conditions by which a process or operation should be run to establish control.
PERSONNEL Employees and other individuals performing work for a RIOS Member Company.
POLICY Statement by the organization of its intentions and principles in relation to its overall quality, environmental, health & safety performance.
PREVENTION OF POLLUTION Use of processes, practices, materials or products that avoid, reduce or control pollution, which may include recycling, treatment, process changes, control mechanisms, efficient use of resources and material substitution.
PREVENTIVE ACTION An action taken to eliminate the causes of a potential nonconformity to the QEH&S management system in order to prevent a nonconformance.
PROCEDURE A documented process.
PROCESS A series of linked activities that creates a product or output.
PRODUCT Output resulting from the processing of inputs Example Product – recycled metal
PRODUCT REQUIREMENT Need or expectation for the product. This includes customer requirements, requirements inherently necessary for the functioning of the product, regulatory requirements, and other requirements determined by the RIOS Member Company.
QEH&S MANAGEMENT SYSTEM A set of interacting processes used to set and implement QEH&S policy(ies) and goals.
RAW MATERIAL An unprocessed material used in a manufacturing process.

RECORD An electronic or paper format that provides objective evidence of activities performed or results achieved.
RIOS MEMBER COMPANY A company that signs up for RIOS membership and maintains a current RIOS membership for its yards.
SENIOR MANAGEMENT Person or persons at a RIOS Member Company that direct and control the Company.
SERVICE An intangible type of product provided by a contractor to a customer. This includes a service provided by a RIOS Member Company and a service provided to a RIOS Member Company Service example – freight transportation
SUPPLIER A person or business that supplies a non-service product to a RIOS Member Company.
SYSTEM AUDIT A systematic documented verification process of objectively obtaining and evaluating evidence to determine whether a RIOS Member Company's quality, environmental, health & safety management system conforms to the QEH&S management system audit criteria set by the organization.

SECTION 1: GENERAL REQUIREMENTS

1.1 Scope and Application

ISRI Services Corporation's (ISC) Recycling Industry Operating Standard™ (RIOS™) has been developed to establish a framework within which the recycling industry can manage and improve its quality, environmental, and health & safety (QEH&S) performance. ISC recognizes the positive impact that sound management practices have upon these areas of concern. RIOS provides the scrap processing recycling industry with a model for implementation of management systems concerned with these issues. The management system developed by RIOS member companies shall be maintained in paper or electronic format and shall include a description of the scope of the system, core elements of the system, and their interactions, and provide direction to related documentation.

1.2 QEH&S Infrastructure

RIOS member companies shall ensure the necessary infrastructure for the effective operation of the QEH&S management system.

1.2.1 Management Structure

Senior management shall define QEH&S roles and responsibilities. Roles and responsibilities shall be in writing.

Senior management shall appoint (a) QEH&S management representative(s) who is (are) responsible for:

- ensuring the QEH&S management system is established, implemented, and maintained in accordance with RIOS; and
- reporting to senior management on the performance of the QEH&S management system.

Senior management shall assign a member of senior management to ensure that health & safety is properly addressed and managed within the system.

1.2.2 Resources and Facilities

Senior management shall ensure the necessary resources (including personnel and financial resources) and facilities (including equipment and technology) for the effective operation of the QEH&S management system.

1.2.3 Document and Recordkeeping Controls

RIOS member companies shall establish written procedures to ensure that all documents and records within the QEH&S management system are managed and controlled.

Procedures shall ensure that documents are:

- established and maintained;
- approved prior to use;
- reviewed, revised, and updated, as necessary, with changes identified;
- current and available at the point of use;
- legible, dated (revision date), and identifiable;
- removed from use when obsolete and if kept for any purpose, clearly identified as obsolete; and
- identified and distribution controlled if from external sources.

Procedures shall ensure that records are:

- established and maintained;
- legible;
- identifiable, traceable to the pertinent process, and readily retrievable; and
- stored and protected from damage or loss.

Record retention times shall be established in writing.

SECTION 2: POLICY

RIOS member companies' senior management shall establish (a) written policy(ies) for QEH&S. Senior management shall ensure that the policy(ies) is (are) implemented.

Senior management shall ensure that the policy(ies):

a) Is (are) appropriate to its operations, and its potential environmental impacts and health & safety risks;
b) Include(s) a commitment to comply with all relevant EH&S legal requirements, customer and product requirements, industry guidelines applicable to RIOS member company industries, and any other QEH&S commitments made by the RIOS member company;
c) Include(s) a commitment to continually improve;
d) Includes a commitment to prevention of workplace injuries;
e) Provide(s) a framework for establishing QEH&S goals;
f) Demonstrate(s) senior management's commitment to customer satisfaction;
g) Include(s) a commitment to the prevention of pollution;
h) Is (are) communicated to and understood by employees;
i) Is (are) made available to[1] the public, suppliers, customers, contractors and other interested parties; and
j) Is (are) reviewed and amended, as necessary and appropriate.

[1] RIOS member companies seeking certification to the ISO 14001 Standard will need to expand this requirement to ensure the environmental portion of the policy is communicated to all personnel working on their behalf. The Standard should be consulted for further information.

SECTION 3: PLANNING

3.1 Identifying the QEH&S Footprint

RIOS member companies shall identify and document their QEH&S footprint so as to be able to set goals and implement appropriate controls and monitoring consistent with their policy(ies). This footprint shall be kept up to date. The footprint shall include:

3.1.1 Important Environmental Impacts and Health & Safety Risks[2]

RIOS member companies shall establish (a) process(es) to identify the actual and potential environmental impacts and health & safety risks of their activities, products, and services, considering both routine and non-routine activities (including emergencies). RIOS member companies shall include those activities, products and services that they perform or provide and those that are performed for them or provided to them by contractors and suppliers.

RIOS member companies shall establish processes to distinguish and identify those environmental impacts and health & safety risks that are most important to their operations.

3.1.2 Legal, Product, and Other Relevant Requirements

RIOS member companies shall establish (a) process(es) to identify and have access to their legal requirements, product and customer requirements, and other QEH&S requirements associated with other commitments they may have.

3.2 Improvement Planning

In order to achieve QEH&S improvement, senior management shall ensure the establishment of written QEH&S goals.

RIOS member companies shall consider their QEH&S policy(ies) and QEH&S footprint in setting goals. Goals may apply to the entire RIOS member company or may be specific to a particular function or responsibility.

RIOS member companies shall consider their technological options and financial, operational and business requirements, and the views of interested parties in setting goals.

[2] RIOS member companies seeking certification to the ISO 14001 Standard and/or the OHSAS 18001 Standard will need to expand this effort to include the identification of environmental aspects that cause environmental impacts and health & safety hazards that cause health & safety risks. The Standards should be consulted for further information.

QEH&S goals shall have designated responsibilities and time frames for achievement.

Goals shall be measurable and quantitative where appropriate, and amended as necessary when changes are made within the company.

SECTION 4: IMPLEMENTATION

4.1 Training

RIOS member companies shall ensure that personnel whose responsibilities and work activities can affect quality performance, have important environmental impacts, or have important health & safety risks are competent based upon education, training, skills and/or experience and are aware of their role within the QEH&S management system.

RIOS member companies shall establish processes to:

a) determine QEH&S competency requirements and identify and implement competency training taking into consideration different levels of responsibility, ability, literacy and required work activities; and
b) determine QEH&S management system awareness training requirements and identify and implement awareness training to ensure that personnel are aware of:
    - their roles and responsibilities within the QEH&S management system;
    - how they contribute to the achievement of the policy and QEH&S goals;
    - the importance of conforming to (the) QEH&S policy(ies), processes, and procedures;
    - the important environmental impacts and health & safety risks associated with their work activities;
    - the potential consequences of departure from QEH&S operating procedures, processes, and requirements; and
    - the benefits of improved personal performance to quality, environment, and health & safety performance.

RIOS member companies shall verify the effectiveness of training.

Records of education, training, skills and experience shall be maintained.

4.2 Communication

Senior management shall ensure that communication processes are established within the company and with customers and external interested parties.

4.2.1 Internal Communication[3]

Internal communication processes shall include communications regarding:

- the QEH&S management system and its structure;
- important environmental impacts and health & safety risks and related environmental and health & safety information;
- effectiveness of the management system; and
- the importance of meeting customer and legal requirements.

Arrangements for employee feedback and consultation shall be included in health & safety communication processes.

4.2.2 Customer Communication

Customer communications processes shall include communications regarding:

- product information;
- customer inquiries, contracts, and order handling, including changes;
- customer feedback and complaints; and
- assessments of customer satisfaction.

4.2.3 Supplier Communication

Supplier communication processes shall include communications regarding QEH&S requirements. This shall include communication of purchasing requirements to suppliers prior to purchase.

4.2.4 Contractor Communication

Contractor communication processes shall include communications regarding QEH&S requirements.

4.2.5 Interested Party Communication[4]

External interested parties communications processes shall address receiving, documenting, and responding to QEH&S related communications from external interested parties.

4.3 Operational Controls

RIOS member companies shall consider their operations and activities associated with their QEH&S footprint and goals and establish processes and written procedures to ensure they are performed in a controlled manner and that the appropriate production equipment is available.

[3] RIOS member companies seeking certification to the ISO 14001 Standard will need to expand this effort to include the communication of environmental aspects. The Standard should be consulted for further information.

[4] RIOS member companies seeking certification to the ISO 14001 Standard will need to expand this effort to include a decision as to whether and how significant environmental aspects are to be communicated. The Standard should be consulted for further information.

Written procedures and work instructions shall be established where their absence might lead to a deviation from the QEH&S policy or goals. Procedures shall stipulate operating criteria.

4.3.1 Customers

RIOS member companies shall establish requirements, processes and written procedures relevant to production and distribution to ensure customer and product requirements and goals are met and that consuming facilities are qualified to receive product. This shall include product tracking, when necessary, control of customer property, and product shipping and delivery when the responsibility of RIOS member companies.

4.3.2 Suppliers

RIOS member companies shall establish requirements, processes, and written procedures to ensure source control of raw materials. This shall include processes to qualify and select suppliers and ensure raw materials from suppliers meet requirements. Records shall be kept.

4.3.3 Contractors

RIOS member companies shall establish requirements, processes, and written procedures necessary to ensure contractors adhere to QEH&S management system requirements.

4.4 Emergency Preparedness

RIOS member companies shall establish processes to identify the potential for and respond to incidents, accidents, and emergency situations. These processes shall include preventing and mitigating the adverse environmental impacts and injuries and illnesses that may be associated with them.

The RIOS member company shall periodically test these processes to the extent practical. Subsequent to tests, incidents, accidents or emergency situations, the company shall review, and where necessary, revise its emergency preparedness and response processes as provided in 5.2 Nonconformance and Corrective and Preventive Action.

SECTION 5: CHECKING AND CORRECTIVE ACTION

5.1 Monitoring and Measurement

RIOS member companies shall establish processes to monitor, measure, validate, and record characteristics of their operations that are key to ensuring effective QEH&S performance, achievement of goals, and product conformity to product requirements. This shall include monitoring of the management system and goals. Measures may be quantitative and qualitative. Monitoring data shall

be analyzed to demonstrate the effectiveness of the management system and assess continual improvement.

5.1.1 Supplier Qualification and Verification of Raw Materials

RIOS member companies shall establish processes to verify raw materials so as to ensure source control. Results of verification shall be considered in supplier qualification and selection.

5.1.2 EH&S Compliance

RIOS member companies shall establish processes to monitor compliance to applicable EH&S legal requirements and other requirements to which the RIOS member company subscribes.

5.1.3 Maintenance and Calibration of Monitoring Equipment

RIOS member companies shall determine the necessary QEH&S monitoring and measurement equipment. Monitoring and measurement equipment shall be maintained and calibrated to ensure it functions properly. Maintenance and calibration records shall be kept.

5.2 Nonconformance and Corrective and Preventive Action

RIOS member companies shall establish written procedures to address and eliminate the causes of nonconformances and potential nonconformances. The process shall:

- assign responsibilities;
- ensure investigation into cause;
- ensure action to address nonconformance and prevent repetition that are appropriate to the magnitude of the nonconformance; and
- include a review of the effectiveness of corrective and preventive actions.

Nonconformances and preventive and corrective actions shall be recorded.

5.2.1 Control of Nonconforming Product

RIOS member companies shall ensure that product, which does not conform to product requirements, is identified and controlled to prevent its unintended delivery or use. Nonconforming product may be corrected, released to the customer with concessions, or used for other purposes. Nonconforming product shall be identified and subsequent actions recorded.

5.3 QEH&S Management System Audits

RIOS member companies shall establish written (a) procedure(s) to periodically evaluate:

- the QEH&S management system's conformance to RIOS; and
- the proper establishment of the QEH&S management system.

The procedure(s) shall address audit scope, considering relative importance of QEH&S processes and results from previous audits, schedule, responsibilities, and reporting of results. Auditors shall not audit their own responsibilities.

SECTION 6: MANAGEMENT REVIEW

Senior management shall at least annually review the QEH&S management system to ensure its adequacy and effectiveness. Management review shall be recorded.

Input to management review shall include:

- audit results;
- feedback from customers and interested parties;
- progress on goals;
- status of preventive and corrective actions;
- follow-up actions from previous management reviews;
- changes that could effect the QEH&S management system; and
- recommendations for improvement.

Output from management review shall include:

- decisions and actions regarding the future direction of the QEH&S management system, such as changes to the policy and goals;
- resource needs; and
- product improvements.

ANNEX A

Correspondence among RIOS™, ISO 9001: 2000, ISO 14001: 2004, & OHSAS 18001: 1999

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
Section 1 – General Requirements			
Section 1.1 – Scope and Application	*Clause 4.1 – General requirements* The company must establish, document and continually improve the effectiveness of a quality management system in conformance with the standard. *Clause 8.5.1 – Continual improvement* The company must continually improve the effectiveness of its quality management system. *Clause 4.2.1 – General document requirements* • Quality manual • Documented procedures • Documents and records required by the Standard and the system *Clause 4.2.2 – Quality manual* • System scope • Documented procedures • Description of system interaction	*Clause 4.1 – General requirements* • The company must establish, document, and continually improve an environmental management system. • The scope of the system must be defined and documented. *Clause 4.4.4 –Documentation* • Policy and objectives and targets • Description of the system scope • Description of the main elements with reference to related documentation. • Documents and records required by the Standard and the system	*Clause 4.1 General requirements* The organization must establish an OH&S management system. *Clause 4.4.4 – Documentation* • Description of core requirements; • Direction to related documentation.
Section 1.2 – QEH&S Infrastructure			

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
1.2.1 – Management Structure	*Clause 5.5.1 – Responsibility and authority* Top management must ensure responsibilities and authorities are defined and communicated. *Clause 5.5.2 – Management representative* A member of management must be appointed as the management representative with defined roles as per the Standard.	*Clause 4.4.1 – Resources, roles, responsibility and authority* • Responsibilities and authorities must be defined, documented, and communicated throughout the company. • A management representative with defined role as per the Standard must be appointed.	*Clause 4.4.1 – Structure and responsibility* • Responsibilities and authorities must be documented and communicated throughout the company. • A member of top management must be appointed to ensure that the requirements of OHSAS 18001 are implemented and maintained.
1.2.2 Resources and Facilities	*Clause 4.1 – General requirements* The company must ensure resources *Clause 5.1 – Management commitment and Clause 6.1 – Provision of resources* Management must provide adequate resources to the QMS. *Clause 6.3 – Infrastructure* The company must provide process equipment, buildings, workspace, utilities, and supporting services to ensure product requirements are met. *Clause 6.4 – Work environment* The company must provide a work environment necessary to meet to product requirements. *Clause 7.1 – Planning of product realization* The company must provide resources specific to the product.	*Clause 4.4.1 – Resources, roles, responsibility and authority* Management must provide adequate resources to the EMS.	*Clause 4.4.1 – Structure and responsibility* Management must provide essential resources to the H&S management system.

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
Section 1.2. Document and Recordkeeping Controls	*Clause 4.2.3 – Control of documents* • The company must establish a documented document control procedure to ensure documents are developed, updated and approved; legible and identifiable (including changes and revision status); available for use. • The procedure must control documents of external origin and prevent the unintended use of obsolete documents. *Clause 4.2.4 – Control of records* • Records must be maintained to provide evidence of effective operation of the QMS. • The company must establish a documented procedure to ensure records are controlled.	*Clause 4.4.5 – Control of documents* • The company must establish a document control procedure to ensure documents are developed, updated and approved; legible and identifiable (including changes and revision status); available for use. • The procedure must control documents of external origin and prevent the unintended use of obsolete documents. *Clause 4.5.4 –Control of records* • Records must be maintained to demonstrate effective operation of the EMS. • The company must establish a procedure to ensure records are controlled.	*Clause 4.4.5 – Document and data control* The company must establish procedures for controlling documents and data to ensure documents can be located and are reviewed, revised, approved, available; removed from use when obsolete, and archived if retained. *Clause 4.5.3 – Records and records management* Records must be maintained to demonstrate conformance to the specification. The company must establish a procedure to identify, maintain and dispose of OH&S records and results of audits and reviews.

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
Section 2 – Policy	*Clause 4.2.1 – General Documentation requirements* The company must establish a documented policy. *Clause 5.1 – Management commitment* Top management must establish the policy. *Clause 5.3 – Quality Policy* • Ensured by top management • Appropriate to the company • Includes commitments to comply with requirements and continual improvement • Provides a framework for objectives • Is communicated and understood • Is reviewed	*Clause 4.2 – Environmental policy* • Defined by top management • Appropriate to the company • Includes commitment to continual improvement, pollution prevention and compliance • Provides framework for objectives • Is documented and communicated to personnel working for the company and made available to the public	*Clause 4.2 – OH&S policy* • Authorized by top management • Appropriate to the company • Includes commitment to continual improvement and compliance • Is documented and communicated to employees and made available to interested parties • Is reviewed
Section 3 - Planning			
Section 3.1 – Identifying the QEH&S Footprint			

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
3.1.1 – Important Environmental Impacts and Health & Safety Risks	N/A	*Clause 4.3.1 – Environmental Aspects* • Procedures must be established to identify environmental aspects and impacts and determine significance. • Significant impacts must be considered when setting up the EMS. • Information must be documented and kept current.	*Clause 4.3.1 – Planning for hazard identification, risk assessment, and risk control* • Procedure must be established to identify OH&S hazards, assess their risks, and implement appropriate controls. • Results of the risk assessments and effects of controls must be considered when setting objectives. • Information must be documented and kept current.
3.1.2 – Legal, Product, and Other Relevant Requirements	*Clause 5.2 – Customer focus* Top management shall ensure that customer requirements are determined and met. *Clause 7.1 – Planning of product realization* Product requirements must be identified. *Clause 7.2.1 and 7.2.2 – Customer-related processes* Product requirements must be identified and reviewed to ensure they can be met prior to committing to supply it.	*Clause 4.3.2 – Legal and other requirements* Procedures must be established to identify, determine how they apply, and maintain access to applicable legal and other environmental requirements.	*Clause 4.3.2 – Legal and other requirements* • Procedures must be established to identify and access applicable legal and other OH&S requirements. • Information must be kept current.

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
3.2 Improvement Planning	*Clause 4.2.1 – Documentation requirements; General* Documentation must include quality objectives. *Clause 5.1 – Management commitment* Top management must ensure that quality objectives are set. *Clause 5.4.1 – Quality Objectives* • Quality objectives must be established at each relevant function & level. • Objectives must be measurable and consistent with the quality policy. *Clause 5.4.2 – Quality Management System Planning* • Planning must be carried out to meet requirements of the standard and to achieve specified objectives. • Integrity of the system must be maintained as changes occur. *Clause 7.1 – Planning of product realization* Appropriate quality objectives must be set for products.	*Clause 4.3.3 – Objectives, targets and programs* • Documented objectives and targets consistent with the policy, significant aspects and legal and other requirements must be established and maintained at each relevant function & level. • The company must consider technological, financial, operational and business issues. • Objectives and targets must be measurable where practical. • Program must be defined to achieve objectives and targets.	*Clause 4.3.3 – Objectives* • Documented objectives consistent with the policy must be established and maintained at each relevant function & level. • The company must consider legal and other requirements, OH&S risks and hazards; technological, financial, operational, and business issues; and the views of interested parties. *Clause 4.3.4 – OH&S Management Program(s)* • Program must be defined to achieve objectives and targets. • Programs must be updated in the event of new products, processes, etc.

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
4.1 Training	*Clause 6.2.1 – Human resources – general* Employees affecting quality must be determined competent for their positions based on education, training, skills, and/or experience. *Clause 6.2.2 – Competence, awareness, and training* • Competence requirements must be determined. • Training must be provided to meet these requirements. • Effectiveness of training must be determined. • Employees must understand how their activities affect the ability to meet specified objectives. • Training records must be maintained.	*Clause 4.4.2 – Competence, training, and awareness* • Employees and others working for the company who can affect the environment must be determined competent. • They must understand the importance of and their role in conforming to the requirements of the EMS, as well as the consequences of not conforming. • They must be aware of the significant environmental impacts related to their activities and the benefits of improved personal performance. • Training records must be maintained.	*Clause 4.4.2 – Training, awareness, and competence* • Employees affecting the OH&S system must be determined competent. • Employees must understand the importance of complying with the OH&S system, as well as the consequences of not complying. • Employees must be aware of their responsibilities and authorities in achieving conformance to OH&S policy and procedures and the requirements of the OH&S system. • Training procedures must consider employee responsibility, ability, and literacy, as well as risks.
4.2 Communication	*See Internal, Customer, Supplier, Contractor and Interested Party Communication.*	*See Internal, Customer, Supplier, Contractor and Interested Party Communication.*	*See Internal, Customer, Supplier, Contractor and Interested Party Communication.*

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
4.2.1 Internal Communication	*Clause 5.1 Management commitment* Top management must communicate the importance of meeting customer and legal requirements within the company. *Clause 5.5.3 – Internal communication* Top management shall ensure appropriate communication processes are established including communication regarding the effectiveness of the QMS within the company.	*Clause 4.4.3 – Communication* Procedures must be established for communication among various levels within the company.	*Clause 4.4.3 – Consultation and communication* • Procedures must be established for communication to and from various levels within the company. • Employees must be involved in the development, review and revision of procedures that affect OH&S and the involvement must be documented. *Clause 4.3.2 – Legal and other requirements* Relevant information concerning legal requirements must be communicated to employees.
4.2.2 Customer Communication	*Clause 7.2.3 – Customer communication* The company must ensure effective customer communication processes regarding product information, ordering and sales, and customer feedback.	*See Interested Party Communication.*	*See Interested Party Communication.*
4.2.3 Supplier Communication	*Clause 7.4.2 – Purchasing information* Appropriate information must be provided to the supplier to ensure that requirements can be met.	*Clause 4.4.6 – Operational control* Relevant procedures and requirements must be communicated to suppliers. *Also see Interested Party Communication.*	*Clause 4.4.6 – Operational control* Relevant procedures and requirements must be communicated to suppliers. *Also see Interested Party Communication.*

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
4.2.4 Contractor Communication	N/A	*Clause 4.4.6 – Operational control* Relevant procedures and requirements must be communicated to contractors. *Also see Interested Party Communication.*	*Clause 4.4.6 – Operational control* Relevant procedures and requirements must be communicated to contractors. *Also see Interested Party Communication.*
4.2.5 Interested Party Communication	N/A	*Clause 4.4.3 – Communication* • Processes must be established for communications with external interested parties. • The company must decide whether to communicate significant aspects, record its decision, and develop a communication methodology if it decides to communicate.	*Clause 4.4.3 – Consultation and communication* Procedures must be established for communication to and from interested parties. *Clause 4.3.2 – Legal and other requirements* Relevant information concerning legal requirements must be communicated to interested parties.
Section 4.3 Operational Control	*Clause 7.1 – Planning of product realization* The company must establish processes including documents to ensure product realization.	*Clause 4.4.6 – Operational control* • The company must identify and plan operations associated with significant aspects to ensure they are carried out under specified conditions. • Procedures, documented where necessary, that specify operating criteria must be established.	*Clause 4.4.6 – Operational control* • The company must identify activities associated with identified risks and ensure they are carried out under specific conditions. • Procedures, documented, where necessary, must be established to reduce or eliminate OH&S risks.

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
4.3.1 Customer Operational Control	*Clause 7.5.1 – Control of production and service provision* Production and service provision including release, post release and delivery, if appropriate, shall be carried out in a controlled manner *Clause 7.5.3 – Identification and traceability* Where appropriate, the product shall be identifiable throughout product realization and records kept *Clause 7.5.4 – Customer property* Customer property must be controlled and protected. *Clause 7.5.5 – Preservation of product* Product must be preserved through delivery. *Clause 8.2.3 – Monitoring and measurement of product* Product must not be released unless it conforms to planned arrangements or release is appropriately approved.	*See Operational Control.*	*See Operational Control.*
4.3.2 Suppliers	*Clause 7.4.1 – Purchasing process* • Products and services must comply with specified purchasing requirements. • Suppliers must be evaluated and selected based on their ability to supply product.	*See Operational Control*	*See Operational Control*

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
4.3.3 Contractors	*Clause 4.1 – General requirements* Any outsourced processes that effect quality must be controlled.	*See Operational Control*	*See Operational Control*
Section 4.4 Emergency Preparedness	N/A	*Clause 4.4.7 – Emergency preparedness and response* • The company must establish procedures to identify the potential for and respond to accidents and emergency situations and mitigate the effects. • Procedures must be tested where practical. • Procedures must be reviewed and revised, where necessary, after tests and occurrence of accidents.	*Clause 4.4.7 – Emergency preparedness and response* • The company must establish procedures to identify the potential for and respond to incidents and emergency situations and mitigate the effects. • Procedures must be tested where practical. • Procedures must be reviewed and revised, where necessary, after tests and occurrence of incidents. *Clause 4.5.2 – Accidents, incidents, nonconformances and corrective preventive action* The Company must establish procedures to mitigate the effects.
Section 5 Checking and Corrective Action			

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
Section 5.1 Monitoring and Measurement	*Clause 7.1 – Planning for product realization* • The company must establish monitoring, etc. to ensure the product meets product criteria • Records must be kept. *Clause 7.5.2 Validation of processes for production and service provision* Where output can not be verified, processes must be validated. *Clause 8.1 – Measurement, analysis and improvement; General* Methods must be developed to measure and analyze appropriate data to ensure conformance to the QMS and to continually improve its effectiveness. *Clause 8.2.1 – Customer satisfaction* Customer perception of conformance with customer requirements must be monitored. *Clause 8.2.3 and 8.2.4 – Monitoring and measurement of processes and products* Products and processes must be appropriately monitored to ensure compliance to specified requirements. *Clause 8.4 – Analysis of data* Appropriate data must be identified, collected, and analyzed to demonstrate the continued suitability and effectiveness of the QMS and to identify opportunities for continual improvement.	*Clause 4.5.1 – Monitoring and measurement* • Procedures must be maintained to monitor key characteristics associated with the activities that can have a significant impact on the environment. • Information must be recorded to track the company's performance, operational controls and objectives and targets.	*Clause 4.5.1 – Performance measurement and monitoring* • Procedures must be maintained to monitor OH&S performance. • Measures must be appropriate. • Progress on OH&S objectives must be measured. • Data and results must be recorded.

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
5.1.1 Supplier Qualification and Verification of Raw Material	*Clause 7.4.1 – Purchasing Process* • Criteria for selecting and evaluating supplier ability to supply product must be established. • Records of evaluation must be maintained. *Clause 7.4.3 – Verification of purchased product* Purchased product ability to meet purchase requirements must be verified.	N/A	N/A
5.1.2 EH&S Compliance	N/A	*Clause 4.5.2 – Evaluation of compliance* Compliance with applicable legal and other requirements must be periodically evaluated and records kept.	*Clause 4.5.1 – Performance measurement and monitoring* Compliance with applicable legal and regulatory requirement must be monitored.
5.1.3 Maintenance and Calibration of Monitoring Equipment	*Clause 7.5.1 – Control of production and service provision and Clause 7.6 – Control of monitoring and measuring devices* • Measuring and monitoring devices that determine evidence of product conformity must be available, identified, used, maintained, and controlled to ensure that measurements meet specified accuracy requirements. • Product associated with invalid monitoring equipment must be controlled. • Calibration and verification records must be maintained.	*Clause 4.5.1 – Monitoring and measurement* Monitoring equipment must be calibrated, verified, and maintained and records kept.	*Clause 4.5.1 – Performance measurement and monitoring* Monitoring equipment must be appropriately calibrated and maintained and records kept.

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
Section 5.2 Nonconformance and Corrective and Preventive Action	*Clause 8.5.2– Corrective action and Clause 8.5.3 – Preventive action* • Documented procedures must be established to ensure corrective and preventive action is taken to identify and eliminate the causes of non-conformities and potential non-conformities. • Records must be kept. *Clause 8.2.2 – Internal audit* Actions taken to address audit findings must be verified and verification results reported. *Clause 8.2.3 – Monitoring and measurement of product* Where processes do not meet specified requirements, corrective action must be taken to ensure product conformity.	*Clause 4.5.3 – Nonconformity, corrective action and preventive action* • Procedures must be established for handling, investigating, correcting, and preventing non-conformance. • Actions must be appropriate to the magnitude of the problem and verified.	*Clause 4.5.2 – Accidents, incidents, non-conformances, and corrective and preventive action* • Procedures must be established for handling, investigating, correcting, and preventing non-conformance. • Actions must be appropriate to the magnitude of the problem and verified.
5.2.1 Control of Nonconforming Product	*Clause 8.3 – Control of non-conforming product* • Product that does not meet specified requirements must be identified and controlled to prevent its unintended use or shipment. • Records must be kept.	N/A	N/A

RIOS™	ISO 9001:2000	ISO 14001:2004	OHSAS 18001:1999
Section 5.3 QEH&S Management Systems Audit	*Clause 8.2.2 – Internal audit* • Periodic internal audits must be performed to determine conformance to the company's documented system and to ISO 9001 and to determine the effectiveness of the system in accordance with a documented procedure. • The audit programme must be planned and criteria, frequency and methods defined. • Auditors must be impartial and cannot audit their areas. • Area managers are responsible for timely closing of audit findings.	*Clause 4.5.5 – Internal audit* • Periodic internal audits must be performed to determine conformance to the company's documented system and to ISO 14001 and to determine the effectiveness of the system and provide input to management review. • The audit programme must be planned. • Audit procedures must be developed to address the requirements of the Standard. • Auditors must be impartial.	*Clause 4.5.4 – Audit* • An audit procedure and program must be established to determine conformance to the company's documented system and to the specification and to determine the effectiveness of the system, review the results of previous audits and provide audit input to management review. • To the extent possible, auditors should be independent of the activities audited.
Section 6 Management Review	*Clause 5.1 Management commitment and Clause 5.6 – Management review* • Top management must review the management system, at planned intervals, to ensure continuing suitability, adequacy and effectiveness. • Input to management review must be consistent with the requirements in the Standard. • Output from management review must include any changes related to improvement of the system, improvement to the product and resource needs. • Records must be kept.	*Clause 4.6 – Management review* • Top management must review management system, at planned intervals, to ensure continuing suitability, adequacy and effectiveness. • Input to management review must be consistent with the requirements in the Standard. • Output from management review must include possible changes consistent with continual improvement. • Records must be kept.	*Clause 4.6 – Management review* • Top management must the review management system, at intervals it determines, to ensure continuing suitability, adequacy and effectiveness. • Review shall address possible changes in light of audit results, changing circumstances and commitment to continual improvement. • Records must be kept.