RIOS:2016

Recycling Industry Operating Standard™

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Contents

Introduction

The Recycling Industry Operating Standard™ (RIOS™) is created specifically for the recycling industry. It integrates generally accepted practices of management systems focused on Quality, Environmental, and Health & Safety management (QEH&S). This allows for more straightforward language and requirements specific to recycling.

The RIOS management system includes plans to assure product quality of recyclable materials and reusable equipment, environmental protection from recycling activities, and health and safety to protect workers and the community. Predicated on an approach of risk-based management, the RIOS management system is intended to proactively manage these elements. The approach is focused on planning for risks, implementing controls, and monitoring and measuring performance to achieve managed levels of acceptable risk and continuous improvement.

Certification is expected to produce a recycler with proactive management of environmental and health and safety risks. The Recycler is also expected to create products and services that consistently meet product specifications and customer requirements. As a result, RIOS-certified recyclers should produce quality products and services with minimal impact to the environment and minimal risk to health and safety.

RIOS is not a replacement for legal compliance. Should there be a conflict between the standard and any legal requirements, the legal requirement shall always take precedence. "Notes" listed throughout this standard are for guidance and are intended to clarify. Notes are not auditable.

1   General Requirements

1.1   Scope and Application

Recyclers shall consider activities performed by the Recycler and Outside Providers, and determine and document the scope of the RIOS management system.
(a) The scope statement shall be documented.
(b) Recyclers shall develop, implement and continually improve a management system that includes the core elements of RIOS and relationships to documentation necessary to conform to the requirements of RIOS.

1.1.1   RIOS Outcomes

Recyclers shall implement a RIOS management system that:
(a) Prevents adverse quality, environmental, and health and safety outcomes;
(b) Promotes improved product or service quality, positive environmental results, and worker health and safety;
(c) Systematically manages its risks, opportunities, and stakeholder and legal requirements in an organized and controlled manner;
(d) Manages change to proactively address impacts to quality, environment, and health and safety;
(e) Monitors and measures QEH&S performance; and
(f) Identifies and corrects causes of nonconformance to improve the Recycler's QEH&S performance.

1.2   QEH&S Infrastructure

1.2.1   Management Structure

Senior Management shall establish, document, and communicate a hierarchy of roles and responsibilities for the effective operation of the RIOS management system.
(a) Senior Management shall identify the senior manager responsible for health and safety for all Recycler activities.
(b) Senior Management shall identify the QEH&S management representative(s) responsible for the RIOS management system.

1.2.2 Resources

Senior Management shall determine and ensure the necessary resources for the effective implementation, operation, and continual improvement of the RIOS management system. Resource needs shall consider:
- existing internal resources, including competent workers;
- need for external resources of outside providers;
- financial resources; and
- infrastructure.

Note: Infrastructure may include equipment, technology, transportation, working space, buildings, etc.

1.2.3 Senior Management

Senior Management of the organization shall demonstrate leadership and commitment by:
(a) Planning
- ensuring policies are established and applied to the RIOS management system;
- ensuring the RIOS management system is consistent and integrated with the business operations;
- ensuring QEH&S goals are established relevant to the Recycler's operations;
- ensuring that hazard identification, evaluation, and control is applied to the entire scope of the RIOS management system; and
- allocating resources, supporting management, and directing personnel to ensure the effective implementation, maintenance, and continual improvement of the RIOS management system.
(b) Implementation
- ensuring outside providers and suppliers are incorporated into the plans and policies of the RIOS management system; and
- supporting and communicating the organization's commitment to the RIOS management system.
(c) Monitoring Performance and Continual Improvement
- monitoring the effectiveness of the RIOS management system and ensuring the RIOS management system achieves the intended results; and
- promoting continual improvement of the RIOS management system.

1.3 Document and Recordkeeping Controls

The RIOS management system developed by Recyclers shall:
(a) Be maintained in paper or electronic format;
(b) Establish documentation where required by the RIOS standard or necessary for the operation of the RIOS management system;
(c) Provide direction to related documentation necessary to conform to the requirements of RIOS; and
(d) Establish records, as required by RIOS or to demonstrate conformance with the requirements of RIOS.

1.3.1 Control of Documents

Recyclers shall establish written plans to ensure that all documents within the RIOS management system are:
- established and maintained;
- include information to uniquely identify, describe, and control the document through revisions;
- legible and dated;
- approved prior to use;
- available in approved formats;
- current and available at the point of use;
- protected from loss;
- reviewed, revised, and updated, as necessary, with changes controlled;
- removed from use when obsolete, and if kept for any purpose, clearly identified as obsolete; and
- identified and distribution controlled if from external parties;

Note: Controlled documents include a variety of formats. Each is formally and deliberately organized into a plan, procedure, standard operating procedure, work instruction, graphical flowcharts, forms, etc.

1.3.2   Control of Records

(a) Recyclers shall establish written plans to ensure that all records within the RIOS management system are:
  -    established and maintained;
  -    legible;
  -    identifiable, traceable to the pertinent process, and readily retrievable; and
  -    stored and protected from damage or loss.
(b) Record retention times shall be established in writing and be consistent with relevant stakeholder and legal requirements.

2   Policy

Senior Management shall establish and implement a written RIOS policy(s) that:
  -    is/are relevant to the scope of the Recycler's operations;
  -    consider(s) environmental impacts of the Recycler's operations and outputs;
  -    consider(s) health and safety risks of the Recycler's operations and outputs;
  -    include(s) commitments to:
      -    comply with all relevant QEH&S legal requirements;
      -    comply with all relevant stakeholder requirements;
      -    continually improve performance;
      -    the prevention of workplace injuries and illness; and
      -    the prevention of pollution;
  -    provide(s) a framework for establishing QEH&S goals; and
  -    demonstrate(s) Senior Management's commitment to customer satisfaction.

The RIOS policy shall be:
(a) communicated to, understood by, and applied by workers;
(b) made available to the stakeholders; and
(c) reviewed at least annually by Senior Management and updated as necessary.

Note: One or multiple policies are acceptable to include all required elements.

3   Planning

3.1   Identifying the RIOS Footprint

Recyclers shall proactively identify and document their RIOS footprint to facilitate goals, controls, and monitoring consistent with their RIOS footprint.
(a) Recyclers shall document the process for determining the RIOS footprint.
(b) The RIOS footprint shall consider:
  -    the activities, products, and services of the Recycler, including those of outside providers that can be influenced by the Recycler, including but not limited to:
      -    purchasing and acquisition of source materials;
      -    on-site processing operations and activities;
      -    transportation, distribution, and delivery; and
      -    changes in operational processes, products, or equipment;
  -    both negative and positive impacts;
  -    actual and potential conditions;
  -    routine and nonroutine activities, including emergencies;
  -    relevant stakeholder requirements and views; and

- legal requirements.
(c) The RIOS footprint shall remain current, be reviewed at least annually, and be updated before planned changes to the system occur.

3.1.1   Important Quality Risks
Recyclers shall identify risks to product and service quality.
(a) Controls shall be planned and documented for each quality risk to manage the risk.
(b) Controls shall be integrated in the RIOS management system, implemented, and monitored for effectiveness.
(c) Recyclers shall plan quality controls for:
- qualification of suppliers, outside providers, and customers, where applicable;
- material and product tracking and traceability, if required; and
- control of customer property, if applicable.

3.1.2   Important Environmental Impacts
Recyclers shall evaluate environmental factors and potential impacts to identify those important environmental impacts of their operations.
(a) Criteria used in determining actual or potential environmental impacts and the results of evaluation shall be documented in the RIOS footprint.
(b) The environmental impacts of all activities, products, and services within the scope of the RIOS management system, including outside providers and activities listed in 3.1 shall be evaluated.
(c) Important environmental impacts shall be controlled, monitored, and evaluated.

3.1.3   Important Health & Safety Risks
Recyclers shall identify the health and safety hazards associated with their operations and RIOS footprint.
(a) In determining important risks, Recyclers shall consider activities listed in 3.1 and:
- the nature of the workforce, contractors, and other visitors to the workplace;
- the nature of the processes;
- source materials; and
- past performance of the Recycler related to each risk.
(b) Recyclers shall identify controls to eliminate or reduce important health and safety risks to an acceptable tolerance. Controls shall be documented as defined in section 4.6 and monitored and evaluated as defined in section 5.1.

3.1.4   Legal Requirements
Recyclers shall identify, document, and have access to their QEH&S legal requirements and determine how QEH&S legal requirements apply to their operations. Controls to manage requirements shall be documented and integrated into the RIOS management system, including implementation and monitoring of effectiveness.

3.1.5   Product, Service, and Customer Requirements
Recyclers shall establish plan(s) to identify and document product, service, and customer requirements. The plan(s) shall:
(a) Define specifications and supplier requirements for source material as inputs;
(b) Define specifications and outside provider requirements for outsourced products;
(c) Determine required product and service specifications, including applicable legal requirements;
(d) Determine customer requirements for acceptance of the product or service;
(e) Determine the resources needed to meet product or service requirements;
(f) Consider the Recycler's capability of providing products or services to the defined requirements;
(g) Define methods to verify, validate, monitor, measure, inspect, or test products for production or shipment; and
(h) Generate records to demonstrate product or service conformity.

3.1.6   Other Stakeholder Requirements

Recyclers shall identify and document other QEH&S requirements associated with commitments they make to stakeholders. Recyclers shall:

(a) Identify stakeholders that are relevant to the Footprint within the RIOS management system;

(b) Document relevant requirements of these stakeholders, including:
-    obligations to stakeholders;
-    compliance with regulations; and
-    conformance with voluntary commitments, such as standards;

(c) Determine how these requirements apply to their operations;

(d) Document and integrate controls to manage stakeholder requirements in the RIOS management system, including implementation and monitoring of effectiveness; and

(e) Monitor and review these stakeholders' requirements and update as requirements and obligations change. Review shall be documented at least annually.

Note: Stakeholders influence behaviors and decisions of the Recycler and can impact the Recycler's QEH&S performance.

3.2   Improvement Planning

Recyclers shall continually improve the suitability, adequacy, and effectiveness of the RIOS management system to prevent nonconformities and improve product and service quality.

3.2.1   Establishing Goals

In order to achieve QEH&S improvement, Senior Management shall establish written QEH&S goals. Goals may apply to the entire operations or may be specific to a particular function, responsibility, product, or service.

(a) Goals shall be:
-    Measureable, as appropriate;
-    monitored;
-    communicated; and
-    updated as needed.

(b) In establishing goals, Recyclers shall consider:
-    QEH&S policies;
-    the RIOS footprint;
-    technological options;
-    financial considerations;
-    operational and business requirements;
-    legal requirements;
-    the views of stakeholders;
-    opportunities for improvement from its monitoring and measuring activities (see 5.1)
-    enhancement of customer satisfaction; and
-    enhancement of product and service quality.

3.2.2   Plans for Goal Achievement

Recyclers shall integrate actions to achieve goals within the RIOS management system. Each goal shall have written plans that:
-    describe what will be done;
-    identify resources required for completion;
-    assign responsibility for tasks;
-    assign due dates for tasks; and
-    define how the results will be evaluated.

3.3 Change Management

Recyclers shall document a written plan for changes that impact the RIOS management system.

(a) Changes shall be documented and evaluated to determine potential QEH&S impacts in the RIOS footprint prior to implementation.

(b) Change management plans shall update the RIOS management system to control important risks.

4 Implementation

4.1 Recycler Knowledge

4.1.1 Competence

For work activities that can affect the quality of the Recycler's products or services; or have important environmental impacts; or have important health and safety risks, Recyclers shall:

(a) Determine the required competence of the person(s) performing or responsible for the activity;

(b) Ensure that the person(s) is competent based upon education, training, skills or experience;

(c) Keep records of competence;

(d) Acquire competence, where needed, with external resources or provide training;

(e) Verify the effectiveness of competency training;

(f) Ensure required training considers:

- different levels of responsibility, ability, literacy, and required work activities;
- the RIOS footprint;
- QEH&S controls;
- roles and responsibilities; and
- frequency.

Note: Attaining competence may include mentoring, reassignment of workers, hiring workers, or contracting with external resources.

4.1.2 Awareness

Recyclers shall document and implement plans to ensure that workers are aware of:

- the RIOS policy(s);
- QEH&S roles and responsibilities within the RIOS management system;
- QEH&S impacts of their work activities;
- relevant QEH&S goals;
- QEH&S performance results;
- emergency response plans;
- the importance of meeting supplier, customer, and legal requirements;
- how they contribute to the effectiveness of the RIOS management system;
- the potential consequences of nonconformance to the RIOS management system; and
- the benefits of improved QEH&S performance.

4.2 Communication

Senior Management shall document communication plans to define how to communicate internally and with external parties, customers, outside providers, and suppliers. Records of communication shall be kept.

4.2.1 Internal Communication

Internal communications plans in the RIOS management system shall:

(a) Ensure important RIOS management system information is effectively communicated between workers and management, including feedback and consultation from workers;

(b) Require timely reporting of newly identified hazards, incidents, or near misses based on the level of severity; and

(c) Provide information about RIOS management system effectiveness (see 6.c).

4.2.2   Customer Communication

Recyclers shall plan and communicate with customers regarding:
- QEH&S requirements including customer qualification requirements, if applicable;
- feedback and complaints; and
- assessments of customer satisfaction.

4.2.3   Supplier Communication

Recyclers shall plan and communicate with suppliers regarding:
- source control requirements for the purchase or acquisition of source materials;
- material that is not acceptable source material prior to receipt; and
- lost or improper processing of supplier property.

4.2.4   Outside Provider Communication

Recyclers shall plan and communicate QEH&S requirements with outside providers including:
- written specifications for outsourced products and services;
- outside provider's responsibilities in the Recycler's RIOS management system; and
- monitoring activities and QEH&S controls applied to the outside provider.

4.2.5   External Communication

Recyclers shall:
(a) Plan for and respond to external inquiries about the RIOS management system.
(b) Communicate relevant information, including emergency plans, to visitors and stakeholders about the RIOS management system.

4.3   Operational Control

Recyclers shall consider their operations and activities relevant to their RIOS footprint and goals to establish operational controls to manage their QEH&S risks and impacts. Processes and documented plans shall be established, implemented, and maintained to ensure operations and activities are performed in a controlled manner.

4.3.1   Source Material

Recyclers shall establish processes to control source materials.
(a) Recyclers shall specify criteria and implement controls for the acceptance of source material. The type and extent of control is based on the source material's impact on QEH&S, including the Recycler's ability to meet customer requirements.
(b) Recyclers shall document processes for the identification and control of any QEH&S supplier requirements for Recyclers to process source material.
(c) Source material that is not accepted shall be identified and controlled to prevent QEH&S impacts while in the Recycler's control.
(d) Source material that is not accepted shall be returned to the supplier or managed in accordance with the RIOS standard.
(e) Records of source material control shall be kept.

Note: Recyclers acquire source materials from upstream suppliers, often referred to as customers by the recycler. The recycler then processes that source material through sorting, shredding, dismantling, refurbishment, or another recycling process. The outputs of processing source materials are products.

4.3.2   Outsourced Providers, Products, and Services

Outsourced products or services shall be controlled to conform to the RIOS requirements of the Recycler.
(a) Specifications for outsourced products and services shall be documented in writing.

(b) QEH&S controls of outside providers, outsourced products, or services shall be implemented and monitored to conform to the RIOS Standard. The type and extent of control is based on the outsourced providers' and outsourced products' or services' impact on QEH&S.

(c) Records of evaluation, selection, and monitoring shall be kept.

4.4   Quality Controls

(a) Product and service specifications and customer requirements shall be documented, approved, and changes controlled in the RIOS management system.

(b) Documented production and service instructions shall be provided to workers.

(c) Monitoring and measurement controls for quality shall be implemented at relevant points in the process.

4.5   Environmental Controls

Recyclers shall control those operations and activities that are associated with the identified important actual or potential environmental impacts (in 3.1.2) in the RIOS footprint and where the implementation of controls is necessary (including legally required) to limit adverse environmental impacts.

(a) Recyclers shall document and implement controls for all important environmental impacts, stipulating operating criteria in the plan.

(b) Environmental controls shall be established for all activities, source materials, products and services within the scope of the RIOS management system that are identified in the RIOS footprint as having an important environmental impact.

4.6   Health & Safety Controls

Recyclers shall control those operations and activities that are associated with the identified hazards (in 3.1.3) in the RIOS footprint and where the implementation of controls is necessary (or required legally) to manage the health and safety risks.

(a) Recyclers shall implement health and safety controls in the following order of priority:
   - elimination;
   - substitution;
   - engineering controls;
   - signage/warnings and other administrative controls; and
   - personal protective equipment.

(b) Health and safety controls shall be established for all activities, products, and services within the scope of the RIOS management system, including health and safety hazards related to source materials, outsourced products and services, on-site contractor activities, off-site activities, chemicals, and operational equipment.

4.7   Emergency Preparedness

Recyclers shall establish written plans to identify the potential for and response to incidents and emergency situations.

(a) Emergency plans shall include preventing and mitigating the adverse environmental impacts in the RIOS footprint and injuries and illnesses that may be associated with each.

(b) The Recycler shall periodically test these plans to the extent practical.

(c) The Recycler shall review and, where necessary, revise its emergency plans after tests, incidents, or emergency situations.

(d) Emergency plans shall be communicated in accordance with the communication plans in the RIOS management system (see 4.2).

5   Checking and Corrective Action

5.1   Monitoring and Measurement

Recyclers shall establish plans to monitor, measure, and record characteristics of their operations that are important to ensuring effective QEH&S performance, achievement of goals, and conformity to product and service requirements. Plans shall define the measurements, methods, criteria, indicators, and timing of monitoring activities.   Monitoring and measurement data shall be analyzed to evaluate the effectiveness of the management system and assess continual improvement.

5.1.1   Activities Requiring Monitoring or Measurement

(a) Important elements of the RIOS footprint (see 3.1) including:
- quality risks;
- environmental impacts;
- health and safety risks;
- legal requirements;
- product and customer requirements, including nonconforming products and customer feedback; and
- relevant stakeholder requirements.

(b) Progress on goals (see 3.2) and change management (see 3.3).

(c) Operational controls (see 4.3).

5.1.2   QEH&S Compliance

Recyclers shall establish a written plan to evaluate compliance, at least annually, to applicable QEH&S legal requirements and other relevant stakeholder requirements. Compliance evaluation plans shall consider the auditor's competency in legal requirements. Results shall be recorded and actions taken to correct noncompliance.

5.1.3   Maintenance and Calibration of Monitoring Equipment

(a) Recyclers shall document the necessary QEH&S monitoring and measurement equipment.

(b) Monitoring and measurement equipment shall be maintained and calibrated or verified to ensure it functions properly.

(c) Calibration and verification shall identify the standard used.

(d) Maintenance and calibration records shall be kept.

(e) If measurement equipment is determined not to be within tolerance, Recyclers shall take corrective action appropriate to the QEH&S impacts of erroneous measurements.

5.1.4   Analysis of Monitoring and Measurement Results

Recyclers shall analyze monitoring and measurement results to identify areas of underperformance to intended results, including areas of potential nonconformance and opportunities for improvement. Results of analysis shall be an input into management reviews.

5.2   Nonconformance and Corrective Action

Recyclers shall ensure appropriate investigations into incidents and nonconformance and take actions to correct underperformance of the RIOS management system to prevent nonconformances.

5.2.1   Control of Nonconforming Product

Recyclers shall establish documented plans to ensure that product that does not conform to product specifications or customer requirements is identified and controlled to prevent its unintended delivery or use.

(a) Nonconforming product shall be corrected, released with concessions, re-classified, or used for other purposes.

(b) Records of nonconforming product and subsequent actions shall be maintained.

5.2.2   EH&S Incident Investigations

(a) EH&S Incident investigations shall include incidents, emergencies, and near misses.

(b) Recyclers shall establish plans to record, investigate, and analyze EH&S incidents to determine root cause.

(c) Investigation shall identify the criteria for correction, corrective action, and prevention of recurrence.

5.2.3   Nonconformance and Corrective Action

Recyclers shall establish written plans to address and eliminate the causes of nonconformances and potential nonconformances in the RIOS management system.

(a) Corrective actions are required, but not limited to, the following when:

-    feedback and complaints identify nonconformances;
-    determined as the result of an incident investigation;
-    internal nonconformances are identified by workers; or
-    external audits or reviews identify nonconformances.

(b) Written corrective action plans shall:

-    identify the root cause(s) of the nonconformance and take action to prevent its recurrence;
-    implement corrective action that is adequate to the QEH&S impact and assigns responsibilities and timelines;
-    record actions taken and the results achieved; and
-    review the effectiveness of corrective actions.

5.3   Internal RIOS Audits

Recyclers shall establish a written plan to evaluate:

-    the RIOS management system's conformance to RIOS;
-    the proper implementation of the RIOS management system; and
-    the effectiveness of the RIOS management system;

(a) The internal audit plan(s) shall consider:

-    frequency;
-    methods of audit;
-    audit criteria and scope;
-    relative importance of QEH&S processes and impacts;
-    changes impacting the Recycler's operations;
-    results from previous audits;
-    audit responsibilities;
-    auditor competency, objectivity, and independence;
-    recording and reporting of results; and
-    addressing nonconformances.

(b) Auditors shall not audit their own responsibilities.

(c) Audits shall occur at least annually and ensure that the RIOS management system has been fully evaluated prior to certification or recertification.

(d) Recyclers shall use the results of internal audits to take corrective action.

6   Management Review

Senior Management shall review the RIOS management system at least annually to ensure its adequacy and effectiveness.

(a) Input to management review shall include:
-   RIOS audit (see 5.3) results;
-   QEH&S compliance audit (see 5.1.2) results;
-   feedback from customers and stakeholders;
-   progress on goals;
-   status of incident investigations and corrective actions;
-   follow-up actions from previous management reviews;
-   changes in scope;
-   important quality impacts;
-   important environmental impacts;
-   important health and safety risks;
-   QEH&S performance, including analysis of monitoring and measurement results; and
-   recommendations for improvement.

(b) Output from management review shall include decisions and actions regarding the future direction of the RIOS management system, including:
-   targeted product and service improvements;
-   continual improvement opportunities;
-   resource needs;
-   risks to the RIOS management system; and
-   changes needed to the RIOS policy(s), goals and the RIOS management system.

(c) Relevant QEH&S performance and output information from management review shall be communicated in accordance with documented communication plans (see 4.2).

(d) Records shall be kept of the results of management review.

For the purposes of this document, the following terms and definitions apply.

RIOS Glossary
Activity
An operation or process that has actual or potential quality impacts, environmental impacts, or health and safety risks. Example activity: metal shredding, paper baling, plastics grinding, electronics refurbishment, tire shredding, etc.
Audit
A formal, documented, and thorough examination by a qualified auditor of the Recycler's conformance to the RIOS requirements and other standards, or compliance with legal requirements.
Auditor
An independent party (may be internal to the organization or external) that conducts audit(s).
Competence
Possession of the knowledge and ability to achieve intended results.
Continual Improvement
Process of enhancing the RIOS management system and QEH&S performance.
Control
Means used to ensure that adverse environmental impacts and health and safety risks are effectively prevented or minimized and that quality goals are met. Controls may include infrastructure, training and competence, communication, operational procedures, and emergency preparedness.
Corrective Action
The implementation of solutions resulting in the reduction or elimination of an identified nonconformance or incident.
Customer
In the context of RIOS, a person or business who purchases, receives, or takes control of (e.g., brokers) a product (e.g., processed material, refurbished computer, etc.) from a recycler, or is the recipient of a service provided by the Recycler. Examples of customers include "downstream vendors," "partners," or "buyers."
Customer Requirement
A need or expectation of the customer.
Effectiveness
A measurement of achieving intended results.
Emergency
An incident often involving a fire, explosion, or spill that has the potential to result in damage or harm to human health and/or the environment and requires immediate action.

RIOS Glossary
Environmental Impact Any change to the environment, whether adverse or beneficial, wholly or partially resulting from the Recycler's activities, products, or services.
Footprint An assessment of the Recycler's activities, products, and services in relation to the potential QEH&S risks and impacts, legal requirements, and expectations of stakeholders.
Global Recycling Standards Organization The organization administering RIOS.
Goal Qualitative or quantitative objective set to achieve improvements in QEH&S performance.
Health & Safety Hazard A situation or object with the potential to cause harm.
Health & Safety Risk The possibility of harm or loss to an individual resulting in personal illness or injury caused by a hazard. Risk considers both the probability that a hazard will cause harm and the consequences of that harm.
Incident An unplanned event that could or does result in personal injury, ill health, damage to property, or an adverse environmental impact. Incidents may include, but are not limited to fire, flying objects, chemical exposure, vehicle crash, spill or unplanned release, worker injury, or other exposure. Incident includes near misses. Note: Some refer to an incident resulting in damage or harm to human health and/or the environment as an accident.
Intended Results The expected outcomes of planning by the Recycler.
Legal Requirement Law or regulation that recyclers are required to abide by.
Management Representative Individual(s) responsible for ensuring the RIOS management system is established, implemented, and maintained in accordance with RIOS. The Management Representative may be an employee or a long-term external contractor, but may not be a short-term consultant.
Management Review Periodic evaluation by Senior Management of the RIOS management system's adequacy and effectiveness.
Monitoring and Measurement The process of keeping track of key operating characteristics of QEH&S performance.

RIOS Glossary

Near Miss

Incident in which an EH&S harm could have occurred but did not.

Nonconformance

The nonfulfillment of a RIOS requirement.

Outside Provider

A person or business that provides to the Recycler or on behalf of the Recycler, products or services that affect product quality, create a potential environmental impact of the operations, or create health and safety hazards to products or the operations.

Note: Outside providers that perform services at the Recycler's facility are also referred to as Contractors.

Outsourced Products and Services

Products and services supplied by an Outside Provider that have a QEH&S impact. Outsourced products may be incorporated into the Recycler's own product or provided directly to the customer. Outsourced services may include on-site or off-site contractors, material removal services, and on-site data destruction services.

Plan

A documented process to achieve intended results.

Policy

Statement(s) by the Recycler of its intentions and principles in relation to its overall quality, environmental, and 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.

Process

An activity or series of linked activities that create a product or output.

Product

Outputs resulting from the processing of source material. Example products from recycling of source material may include processed scrap metal, paper, electronics, rubber, plastics, glass, and textiles; refurbished computers, data-sanitized devices, and shredded circuit boards.

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.

Record

An electronic, paper, or other (e.g., photograph, physical sample) format that provides objective evidence of activities performed or results achieved.

RIOS Glossary

Recycler

The term "recycler" is used throughout RIOS as a broad reference to numerous different organizations in the recycling industry. This includes, but is not limited to, recyclers, shredders, refurbishers, resellers, and brokers across commodity streams, including electronics, glass, metal, rubber, plastics, paper, and other recyclable commodities. When capitalized, "Recycler" or "Recyclers" refers to the organization(s) implementing RIOS.

RIOS Management System

An integration of QEH&S plans resulting in a comprehensive framework to control quality, environmental impacts, and health & safety risks of the Recycler's operations.

Senior Management

Person or group responsible at the top level of management for the activities of the Recycler. Also referred to as leadership.

Service

An intangible type of output (e.g. freight transportation, maintenance, etc.).

Source Material

Input material (e.g., scrap metal, paper, electronics, rubber, plastics, glass, and textiles) that is processed to create products.

Stakeholder (Interested Parties)

Individual or group (internal or external to the organization) that is concerned with or affected by the QEH&S performance of recyclers. Stakeholders can include customers, workers, suppliers and contractors, regulators, neighbors, etc.

Supplier

A person or business that provides source materials as inputs into the Recycler's operations. Examples of suppliers include "inbound customers," "upstream customers," or "clients."

Worker

Any person performing tasks for the activities on behalf of the Recycler.

Contract employees (temporary), such as those obtained through an employment agency, are considered workers, not contractors, for the purposes of RIOS.