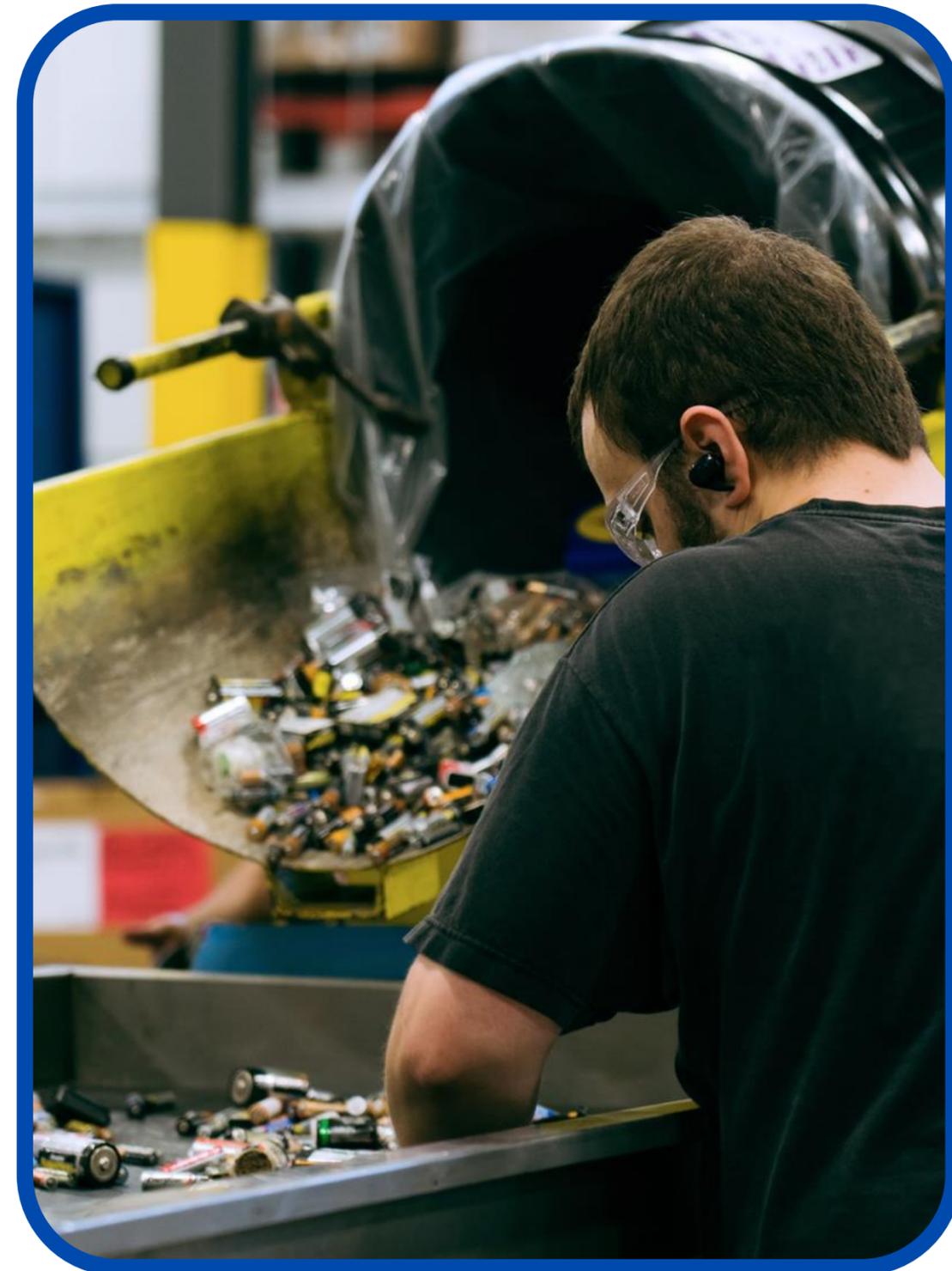


**NAVIGATING RIOS 2016
MANAGEMENT SYSTEM:
ESSENTIAL OVERVIEW
& KEY INSIGHTS**

TODAY'S **AGENDA**

- Introductions
- History of RIOS
- RIOS News and Updates
- RIOS Companies
- RIOS Fundamentals
- RIOS Standard: Key Requirements, Terms and Clauses
- The "RIG" (RIOS Implementation Guide)
- Benefits of RIOS Certification
- Joining RIOS and The Certification Process
- FAQs, other questions?



OUR TEAM

SHANNON FERTITTA

Executive Director, GRSO (Global Recycling Standards Organization)
Administrator, RIOS



FUN FACT: My previous company was the 2nd Non-Profit in the nation to become RIOS-Certified in 2012.

RIKE SANDLIN

Executive Advisor GRSO
(Global Recycling Standards Organization)



SARAH KIM

RIOS Course Instructor
Owner, E-Reuse Services



HISTORY OF RIOS



A Board of Directors was formed including members of ISRI (now known as ReMA), creating the Global Recycling Standards Organization, a 501c6 organization.

The first facility was certified to RIOS:2006.

Following R2 partnership, RIOS grows in popularity among recyclers in the electronics space.

RIOS aligns in partnership with e-Stewards



The first version of the RIOS standard was drafted, accredited, and released to the industry.

RIOS aligns in partnership with R2

Building on the success of RIOS:2006 and integrating lessons learned along with industry changes, RIOS released the 2016 version.

RIOS aligns with CTIA's WISE certification; RIOS continues to grow in popularity with over 300 certified facilities across North America and beyond.



RIOS NEWS AND UPDATES

The 10-Year RIOS Update is in the works

- A RIOS Technical Advisory Committee (TAC) has been assembled and began holding regular meetings in 2025.
- There is no definite completion timeline, but a draft is expected for late 2026. There won't be an overhaul to the RIOS Standard, but an edit and expansion to the current one.

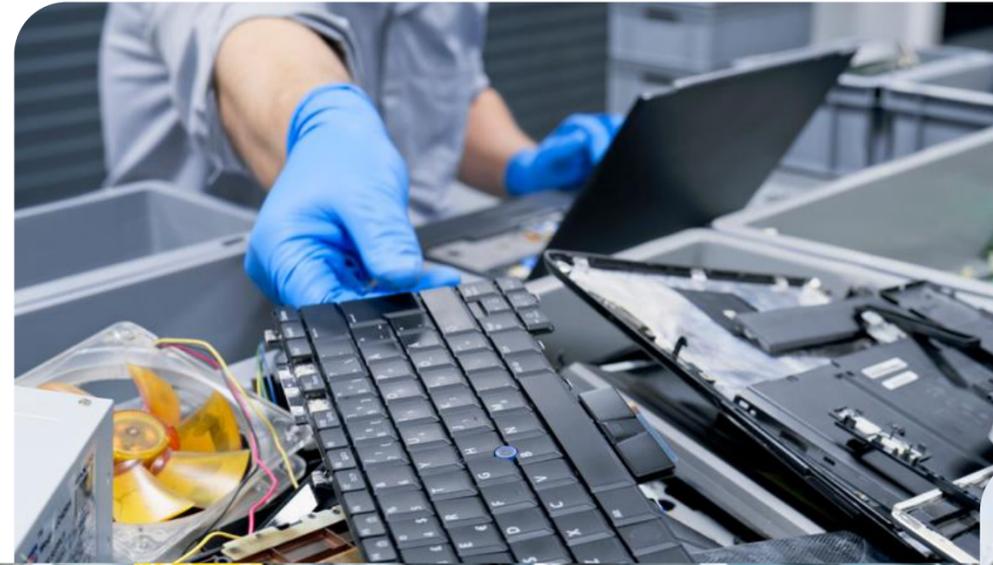


GLOBAL GROWTH

- We now have an approved Spanish translation of the RIOS Standard.
- In 2025, we added our first certified facility in Costa Rica.
- RIOS has formed a partnership with CARI (the Canadian Association of Recyclers) to expand RIOS to more recyclers in Canada.

TYPES OF RIOS COMPANIES

- Ferrous Metals
- Non-Ferrous Metals
- Plastic
- Paper and Cardboard
- Glass
- Electronics
- Tire and Rubber
- Multi-Commodity recyclers or MRFs



RIOS

FUNDAMENTALS

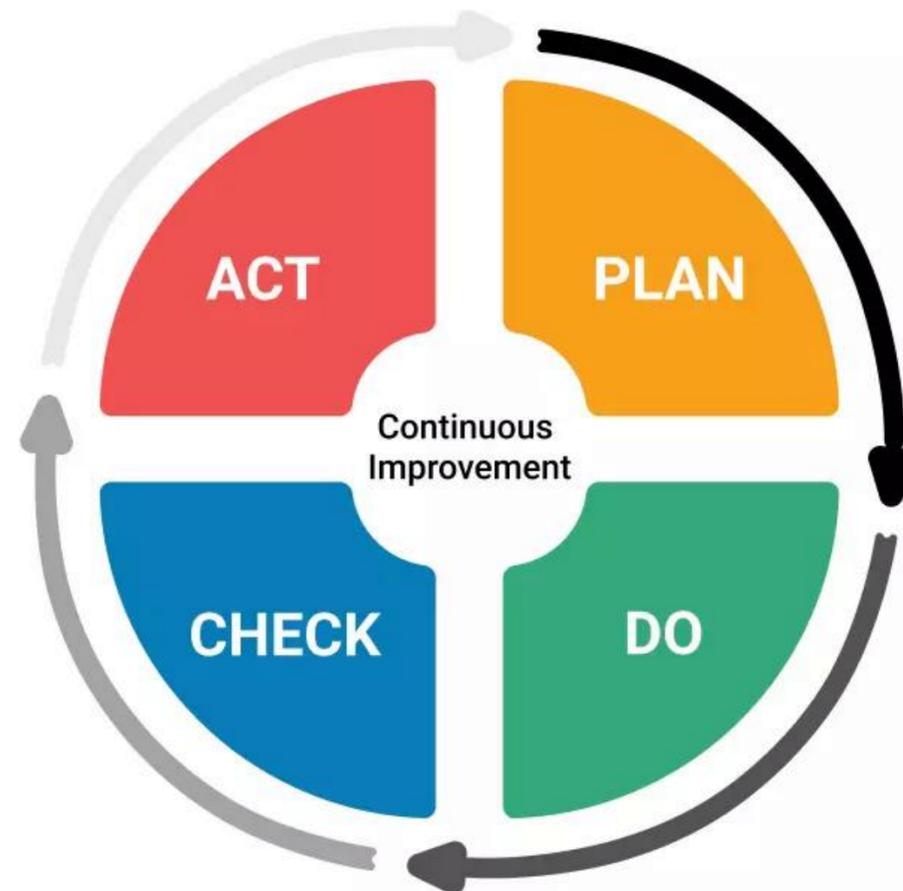
- RIOS (the Recycling Industry Operating Standard) is an INTEGRATED System, managing the **Quality, Environmental, and Health and Safety** outcomes for an organization.
- RIOS is the only management system and certification designed BY RECYCLERS, FOR RECYCLERS.
- RIOS serves as the essential QEHS framework for other industry standards (R2v3, e-Stewards, WISE... others to come)
- RIOS is Nationally Accredited by ANAB (ANSI National Accreditation Board)



UNDERSTANDING RIOS

- Emphasis on LEADERSHIP
- Focus on PROACTIVE MEASURES and RISK IDENTIFICATION AND MANAGEMENT
- Emphasis on Recycler's OUTCOMES

Key Requirements in RIOS:2016

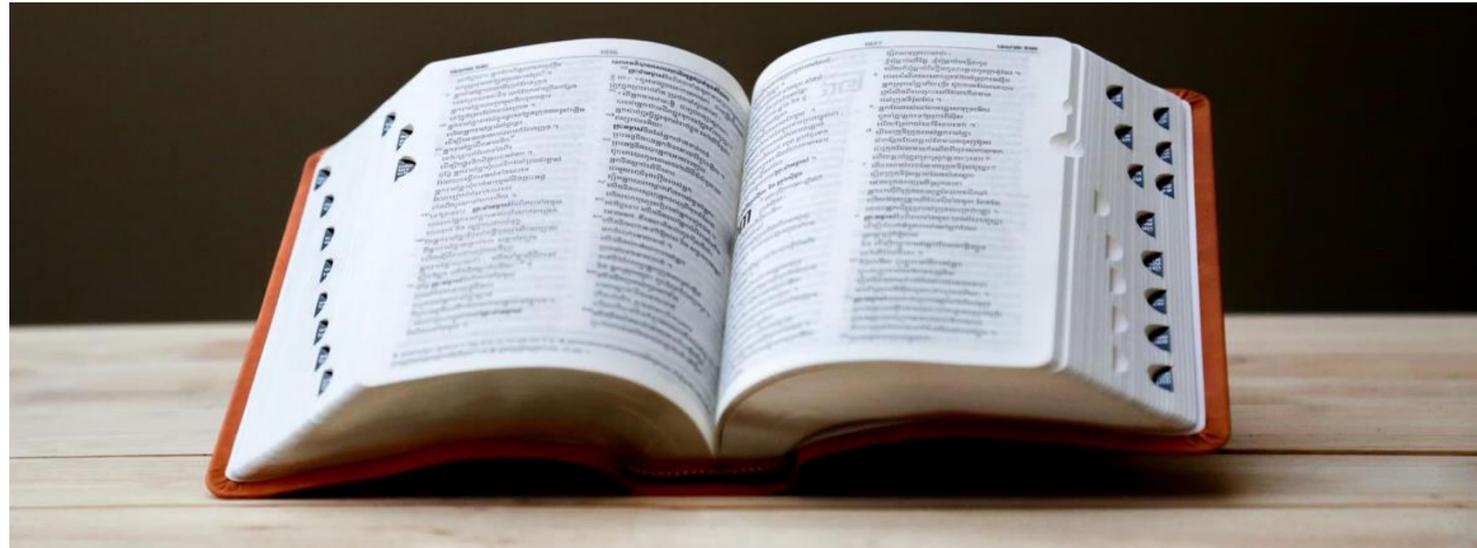


- Encourages Communication and Awareness - including internal, external, customers, and stakeholders.
- Change Management
- Goals and Continuous Improvement

UNDERSTANDING RIOS



Key Terms in RIOS:2016



- **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, or brokers. When capitalized, “Recycler” is referring to the organization that is implementing RIOS.

- **ACTIVITY:** An operation or process in the facility that has actual or potential quality impacts, environmental impacts, or health and safety risks (think: baling, shredding, data destruction in refurbishment, operating a vehicle or forklift)
- **GOAL:** A qualitative or quantitative objective set to achieve performance improvements in QEH&S performance.
- **FOOTPRINT:** An assessment of all the Recycler’s activities, products, and services as related to the potential QEH&S risks and impacts, legal requirements, and expectations of stakeholders.

UNDERSTANDING RIOS

Overview of RIOS:2016 Clauses

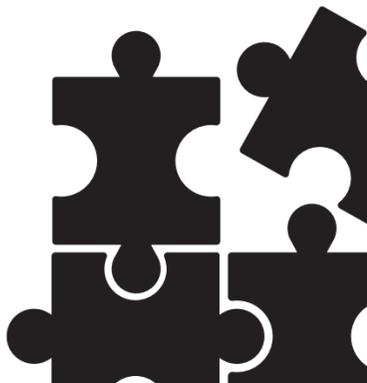


RIOS is made up of 6 SECTIONS:

1. General Requirements
2. Policy
3. Planning
4. Implementation
5. Checking and Corrective Action
6. Management Review

Section 1: General Requirements

This section establishes the foundational requirements for the management system, requiring the organization to define the **scope** of its operations and establish a system to manage quality, environment, and health & safety.



UNDERSTANDING RIOS



Section 2: Policy

Management is required to define and document a **QEH&S policy** that includes commitments to safety, environmental protection, compliance with legal requirements, and continual improvement. This policy must be communicated to employees and, when necessary, to interested parties.

Overview of RIOS:2016 Clauses

Section 3: Planning

Organizations must identify environmental impacts, health and safety hazards, and quality risks and impacts of their operations (**the "RIOS Footprint"**). This includes identifying all legal and regulatory obligations, setting measurable goals and objectives for improvement, and creating plans to achieve them.



UNDERSTANDING RIOS

Overview of RIOS:2016 Clauses

Section 4: Implementation

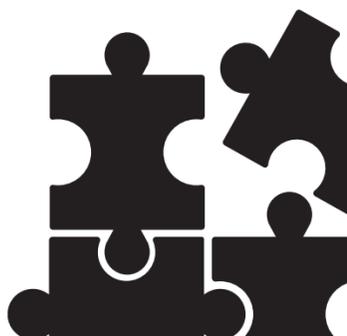
This section details how the management system is executed. Key requirements in this section include Operational Controls, Competence and Training, Communication Procedures, and Documentation.

Section 5: Checking and Corrective Action

Facilities must monitor, measure, and track their performance against their goals. This section includes conducting internal audits, monitoring compliance with legal obligations, and implementing corrective and preventive actions when issues are identified.

Section 6: Management Review

Top management must periodically review the entire system to ensure its continuing suitability, adequacy, and effectiveness. This review drives the "Act" part of the cycle, ensuring that the system is improved and that resources are available to meet the goals.





ABOUT THE “RIG” (RIOS IMPLEMENTATION GUIDE)



- The RIG is a series of **documents, tools, and templates** intended to help recyclers of every size and every commodity effectively implement RIOS.
- The RIG is designed to be accessible to employees who are not compliance experts but have a role managing environmental issues, employee health and safety and quality control.
- The RIG includes a FOOTPRINT TOOL that can help a recycler better understand the required steps from Section 3, and ensures they are effectively capturing the needed inputs.
- The RIG is provided as a toolbox of FREE resources to RIOS Members, but is NOT auditable.

RIOS CERTIFIED RECYCLER PROHIBITED MATERIALS (MATERIALES PROHIBIDOS)				
RADIOACTIVE MATERIALS (MATERIALES RADIOACTIVOS)	HAZARDOUS MATERIALS (LIQUIDO PELIGROSO)	NON-METALLIC (NO-METALLICO)	CORROSIVES (CORROSIVO)	COMPRESSED GAS CYLINDER (CILINDROS DE COM)
	Oil Antifreeze Paint	Tires Dirt Wood Asbestos	Insulation Fiberglass Roofing Solid Waste	Batteries
FLAMMABLE MATERIALS (MATERIAL INFLAMABLE)	OTHER HAZARDOUS MATERIALS (OTROS MATERIALES PELIGROSOS)	REFRIGERANTS (REFRIGERANTES)	PCBs	EXPLOSIVES (EXPLOSIVOS)
	Pesticides Oil Filters Mercury Switches Fluorescent Lights	Air Bags Lead CRTs	Freon / Substitutes (e.g., R-134a) Cars Compressors Air Conditioners	Capacitors Transformers Ballast

RIOS CERTIFIED RECYCLER PPE Hazard Assessment – Site Manager 4.6.b-2

GENERAL INFORMATION	
Employee's Name:	Department:
Job Title/Task: Site Manager	
EQUIPMENT SELECTION	
<input checked="" type="checkbox"/> Required PPE to be supplied by personnel/contractors <input checked="" type="checkbox"/> Required PPE to be supplied by company	
Eye and Face Protection	
<input checked="" type="checkbox"/> Safety Glasses <input type="checkbox"/> Welding Goggles	<input type="checkbox"/> Helmet / Shield <input type="checkbox"/> Goggles
<input type="checkbox"/> Welding Goggles	<input type="checkbox"/> Face Shield <input type="checkbox"/> Welding
<input type="checkbox"/> Bump Cap	<input type="checkbox"/> Other(s):
<input type="checkbox"/> Rain <input type="checkbox"/> Chemical Protective Type:	<input type="checkbox"/> Other(s):
<input type="checkbox"/> Water Resistant Gloves	
Visibility Stripping or Colors? <input type="checkbox"/> Yes <input type="checkbox"/> No	Visibility Stripping or Colors? <input type="checkbox"/> Yes <input type="checkbox"/> No
Facepiece Model #: _____	Cartridge Type: _____
Facepiece Model #: _____	Cartridge Type: _____
<input type="checkbox"/> Ear Muffs	<input type="checkbox"/> Canal Caps

FOOTPRINT

EXAMPLE

Environmental Impacts and Health and Safety Risks List Template

Impact/Risk Categories	Causes of potential Environmental Impacts specific to operations	Effects on the Environment			Causes of potential Health and Safety Risks specific to operation
		Likelihood	Consequence	Rating	
AIR EMISSIONS DUST/FUMES - Degradation of Air Quality/Personal Injury	Ozone depletion, toxic chemicals and heavy metals like mercury released into the atmosphere	5	4	20	Exposure to dust particulates, heavy metals, toxic chemicals
CHEMICALS/HAZARDOUS SUBSTANCES					Corrosive to the eyes, the skin and

RIOS CERTIFIED RECYCLER Change Management Plan 3.3.b

CHANGE DESCRIPTION: _____

CHANGE MANAGER: _____ TARGET COMPLETION: _____ AREA(S): _____

The below tasks should be consistent with 6.3.a Change Management Checklist which identifies additional modifications needed to implement the change.

Task #	Task	Target Completion	Assigned To	Status	Comments

Status Updates

Date	Notes

Example

Facepiece Model #: _____ Cartridge Type: _____

Facepiece Model #: _____ Cartridge Type: _____

Ear Muffs Canal Caps



BENEFITS OF RIOS CERTIFICATION



- Recyclers can more effectively manage their systems, which results in stronger health and safety programs, greater environmental responsibility and better operational efficiency.
- Identifying and minimizing risks across the company.
- Creates a positive public image and strengthens customer relationships.



- Fosters management commitment and employee engagement
- Potential financial benefits, including fewer returns of sold products, fewer equipment breakdowns, and lower insurance rates.
- Gaining a competitive advantage by marketing your certified brand.
- Ability to integrate with other industry standards.

RIOS

MEMBERSHIP AND CERTIFICATION

Obtaining RIOS membership for a recycling facility involves:

- Completing a RIOS Membership Application Form
- Submitting applicable initial RIOS membership fees in U.S. dollars (no other currency accepted)
- Returning a signed specific RIOS™ Member License Agreement.

NOTE: Members will receive a licensed member copy of the RIOS standard as part of their membership documents. A Non-Member review copy of the RIOS Standard can be requested on our website, available at no cost.



Other Deliverables:

- RIOS Certificate of Membership, good for ONE YEAR.
- Library of RIOS Implementation Videos
- Members-only access link to the RIG
- Access to the RIOS resources and support team

Once membership is obtained, the recycler can begin the steps to certification:

- Use the RIOS Implementation Guide and RIOS Training Videos to implement the QEHSMS, including required training.
- Ensure the QEHSMS has been fully implemented by conducting an internal audit and compliance evaluation.
- Contract with a CB (Certifying Body)
- Ensure any non-conformances identified during the internal audit are corrected.
- Stage 1 audit – Document review
- Stage 2 audit – Certification (usually onsite)
- Certification cycle is 3 years – the following 2 years are surveillance audits.

RIOS - FAQs



Q: Can RIOS really improve a recycler's financial performance?

A: In short, yes; companies with Quality, Environmental, Health, and Safety (QEHS) management system certifications are frequently given financial preferences and experience better financial performance. These certifications act as a signal of lower operational risk, which, in turn, allows for better terms from financial institutions, insurers, and clients - this means LOWER INSURANCE RATES, IMPROVED ACCESS TO CAPITAL, REDUCED OPERATIONAL COSTS, LOWER RISK OF FINES, ENHANCED ACCESS TO CONTRACTS, AND INCREASED ROI. While the certification process itself requires an upfront investment of time and money, it often leads to a better financial, reputational, and operational status.

Q: How is RIOS different than ISO Standards?

A: The Recycling Industry Operating Standard (RIOS:2016) is a specialized management system designed specifically for the recycling industry that combines Quality (ISO 9001), Environmental (ISO 14001), and Health & Safety (ISO 45001) into one, integrated standard. The primary difference in terms is that RIOS:2016 uses simplified, industry-specific language to replace the more technical, generic, and sometimes redundant language of the individual ISO standards. RIOS language is tailored to recycling operations (e.g., scrap yards, processing facilities), whereas ISO 9001/14001/45001 are generic and applied across all industries. If a company is exclusively in the recycling industry, RIOS uses terminology that is easier to understand and apply. If there is a need to demonstrate compliance to non-recycling customers, ISO standards may be required, although RIOS meets the requirements for R2v3 and other industry standards.

RIOS - FAQs



Q: Is RIOS only for Electronics Recyclers?

A: RIOS is a system designed for (and used by) recyclers of ALL commodities! Ferrous, Non-Ferrous Metals, Paper and Cardboard, Plastic, Tire and Rubber, Electronics, and Multi-commodity recycling facilities.

Q: How long does it take to implement RIOS to become audit-ready?

A: Implementing RIOS typically takes 6 months to one year on average. The exact timeline depends heavily on the resources, time, and effort dedicated to the process, as well as the size and complexity of the facility. Key factors to consider when estimating the timeline are:

- Method: While designed as a "do-it-yourself" system, using consultants can accelerate the process.
- Scope: Larger, more complex, or multi-department organizations may take longer than smaller, simpler facilities.
- Phases: The process involves an initial assessment, gap analysis, system development (using the RIOS Implementation Guide/RIG), training, and internal audits before the final certification audit.
- Audit Prep: The audit process itself involves a two-part procedure: a document review followed by an on-site certification audit.

Any other questions?

**THANK
YOU**



RIOSTM
CERTIFIED RECYCLER



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