



# Understanding RIOS



**RIOS**  
RECYCLING INDUSTRY  
OPERATING STANDARD®



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# Understanding RIOS



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- Welcome From PJR Headquarters:
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  - Email: [PJR@PJR.com](mailto:PJR@PJR.com)
- Audience for today's meeting
- Introduction of speakers
- Today's Session (1 Hour)
  - RIOS Benefits
  - RIOS Breakdown
  - Management Pitfalls
  - Common Nonconformances
  - Certification Process
  - New to PJR
  - Questions



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# What is RIOS?



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- Recycling Industry Operating Standard
- An integrated quality, environmental, health & safety management system standard designed specifically for the scrap industry
- Goal of RIOS:
  - Help scrap recyclers achieve measurable goals and continual improvement in their QEH&S performance



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# RIOS Benefits



- Bring health & safety performance under systems control
- Integrate with QMS and EMS requirements; eliminate duplication; improve efficiency
- Improve employees understanding of improved health & safety performance
- Reduce risk (insurance costs)
- Enhanced public perception
- Better community relations



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# RIOS Benefits



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- Monitor and improve product quality, increasing customer satisfaction and confidence
- Keep on top of environmental compliance, decreasing environmental risks and costs
- Improve health & safety practices, reducing health & safety risks and costs
- Improve relations with your neighbors, legislators, and regulators
- Ensure continual improvement in your operations, boosting efficiency and profitability
- Empower your employees to work towards common goals, increasing productivity



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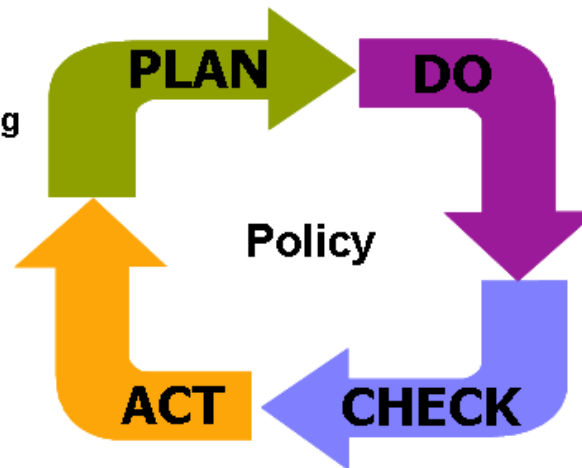
# Plan-Do-Check-Act Management System Model



## Planning Requirements

- Defining the QEH&S Footprint
- Improvement Planning

## Management Review Requirements



## Implementation Requirements

- Training
- Communication
- Operational Control
- Emergency preparedness

## Checking and Corrective Action Requirements

- Monitoring and measurement
- Nonconformance and corrective and preventive action
- QEH&S management system audit

## General Requirements

- Scope
- QEH&S Infrastructure

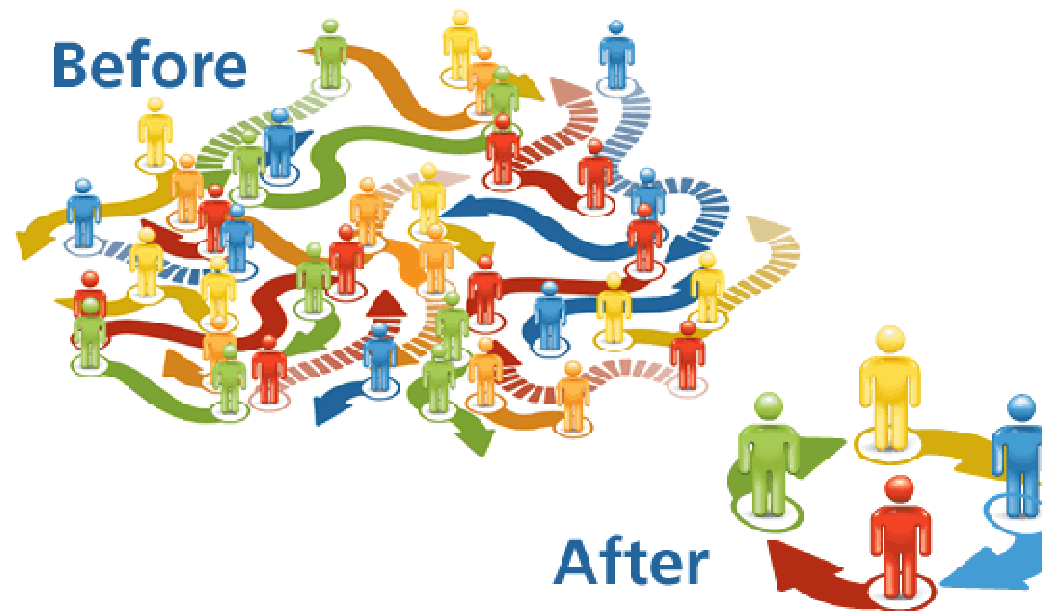




# QEH&S Management System



A set of interacting processes used to set and implement QEH&S policies and goals.





# Section 1: General Requirements



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## 1.1 Scope and Application

- The management system shall be maintained in paper or electronic format; and
- Shall include
  - a description of the scope of the system,
  - core elements of the system,
  - their interactions, and
  - direction to related documentation.



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## Section 1: General Requirements



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### 1.2.1 Management Structure

- Senior management shall appoint the QEH&S Management Representative
  - 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



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## Section 1: General Requirements



### 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.





# Section 1: General Requirements



## 1.2.3 Document and Recordkeeping Controls

- Established written procedures for document and record control.
  
- 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



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Senior management shall establish a written policy for QEH&S.

The Policy shall:

- Be appropriate to its operations, and its potential environmental impacts
- and health & safety risks;
- Include 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;
- Include a commitment to continually improve;
- Include a commitment to prevention of workplace injuries;
- Provide a framework for establishing QEH&S goals;
- Demonstrate senior management's commitment to customer satisfaction;
- Include a commitment to the prevention of pollution;
- Is communicated to and understood by employees;
- Is made available to the public, suppliers, customers, contractors and other interested parties; and
- Is reviewed and amended, as necessary and appropriate.



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## Section 3: Planning



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### 3.1 Identifying the QEH&S Footprint

- **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.



Reduce your footprint.



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## Section 3: Planning



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### 3.1.1 Important Environmental Impacts and Health & Safety Risks

- The organization shall establish a process 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).
- The organization 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.
- The organization shall determine the significance of their health & safety risks



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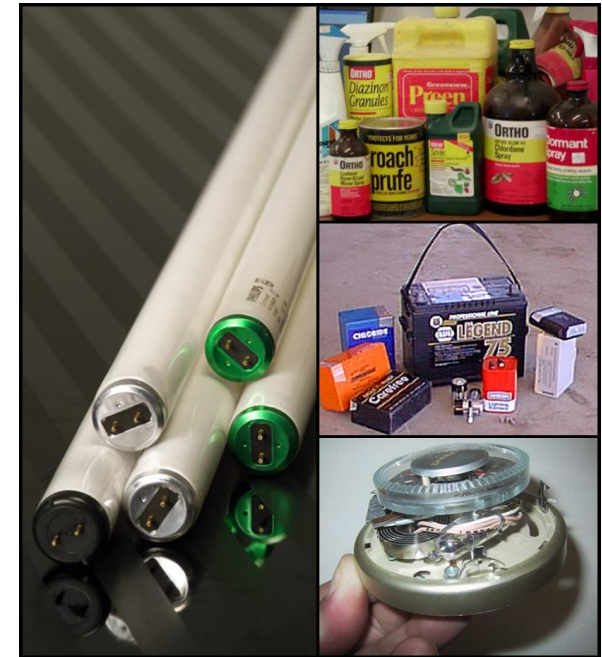
## Section 3: Planning



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### 3.1.2 Legal, Product, and Other Relevant Requirements

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



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## Section 3: Planning



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### 3.2 Improvement Planning

- Senior Management shall ensure that written QEH&S goals are established.
- Goals may be specific to a particular function or may apply to the entire organization.
- The organization shall consider their technological options and financial, operational and business requirements, and the views of interested parties in setting goals.
- 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.



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# QEH&S Goals



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T or F      The following goal meets the RIOS Requirements

Goals	Task Responsibility
Reduce total amount of product received that goes to the landfill by 5%.	Jason Smith



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## Section 4: Implementation



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### 4.1 Training

- Competency based on education, training, skills and/or experience.
- The organization shall establish processes to:
  - determine and implement awareness training requirements to ensure that personnel are aware of:
    - their roles and responsibilities;
    - how they contribute to the achievement of the policy and QEH&S goals;
    - the importance of conforming to the QEH&S policy, 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.



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## Section 4: Implementation



### 4.2.1 Internal Communication

- Process 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.





## Section 4: Implementation



### 4.2.2 Customer Communication

- Process 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.





## Section 4: Implementation



### 4.2.2 Contractor Communication

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

### 4.2.3 Interested Party Communication

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





## Section 4: Implementation



### 4.3 Operational Controls

- Organizations 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.





## Section 4: Implementation



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### 4.3.1 Customers

- Organizations 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.



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## Section 4: Implementation



### 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.







## Section 4: Implementation



### 4.3.2 Contractors

- Organizations shall establish requirements, processes, and written procedures necessary to ensure contractors adhere to QEH&S management system requirements.



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## Section 4: Implementation



### 4.4 Emergency Preparedness

- Organizations 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.
- Organizations 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



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### 5.1 Monitoring and Measurement

- Organizations 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.



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## SECTION 5: CHECKING AND CORRECTIVE ACTION



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### 5.1.1 Supplier Qualification and Verification of Raw Materials

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



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## SECTION 5: CHECKING AND CORRECTIVE ACTION



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### 5.1.2 EH&S Compliance

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



### AUDIT CHECKLIST

- Audit Satisfactory
- Non-conform
- Observatic



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# EH&S Compliance



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T F RIOS member companies need only identify applicable legal requirements in order to meet the EH&S Compliance requirement.



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## SECTION 5: CHECKING AND CORRECTIVE ACTION



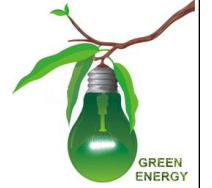
### 5.1.3 Maintenance and Calibration of Monitoring Equipment

- Organizations 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.





# Measuring and Monitoring



T F Scales used to weigh incoming material must be calibrated periodically to ensure accuracy.



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## SECTION 5: CHECKING AND CORRECTIVE ACTION



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### 5.2 Nonconformance and Corrective and Preventive Action

- Organizations shall establish written procedures to address and eliminate the causes of nonconformances and potential nonconformances.
- The process shall:
  - assign responsibilities;
  - ensure investigation into cause (root 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.



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## SECTION 5: CHECKING AND CORRECTIVE ACTION



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### 5.2.1 Control of Nonconforming Product

- Organizations 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.



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## SECTION 5: CHECKING AND CORRECTIVE ACTION



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### 5.3 QEH&S Management System Audits

- Organizations shall establish written procedures to periodically evaluate:
  - the QEH&S management system's conformance to RIOS; and
  - the proper establishment of the QEH&S management system.
- The procedures 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.



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# QEH&S Management System Audits



The QEH&S Management Representative conducted ABC's annual full-system internal audit, which included the following:

- Conformance to RIOS
- Proper establishment of the QEH&S management system
- The audit procedure addressed the audit scope, processes, results from previous audits, schedule, responsibilities and reporting of the audit results

## What if any potential issues exist?

- a) According to the RIOS standard, internal audits are required to be conducted twice per year.**
- b) The management representative is not allowed to be the sole auditor of the QEH&S management system.**
- c) According to the RIOS standard, a compliance evaluation shall be conducted as part of the internal audit.**





## SECTION 6: Management Review



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- 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.



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# Common Management Pitfalls



- Management mandates that the facility seeks RIOS certification but does not allocate the appropriate personnel (resources) and they don't empower the individual "management rep" with both the responsibility and authority. Usually they give the individual manager the title and then task them to get the facility certified. However, they don't have the authority to make decisions, take the appropriate action necessary to implement. Also, they don't have the authority over the various departments to get the tasks accomplished in the timelines the facility sets as deadlines.
- Management often assigns a person to drive the certification but the individual is so busy doing the job that they already have. They often never get the program launched have enough time to research the standard or seek out the appropriate training, or have the ability or time to master the appropriate procedure writing needed to meet the standard.
- Management hires an incompetent consultant who does not establish timelines, does not have the technical ability to actually write and help construct procedures and frankly uses the company as a "host" and goes into a training mode and never has an end game. Often the company has never ending changes and these changes often manifest themselves into excuses as to why the consultant can't get the job done. Moral of the story: Have an interview list of points you expect as deliverables for a consultant and interview accordingly.





# Common Management Pitfalls



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- Constant turnover hurts the progression and the company has to continue to start over and over again. Company should do a “root cause” analysis as to why turnover continues. Usually point to top management philosophy getting in the way of employee retention.
- Company does not have competent personnel to write the procedures that meet the exact standard required. Procedure writing is an art and sometimes individuals can write way too much and get the company into an audit quagmire that is unnecessary. This may be a problem and sometimes the procedures are too generic and don't meet all of the requirements of the standard. Sometimes procedure writing is too narrative and needs some flow charting and sometimes this is vice versa. There is no right or wrong way, just what serves as the best format for the company. Whatever format is used the philosophy of “keep it simple” should always be at the forefront. Make it easily auditable and easy for internal and external staff to follow and have a good document and data control and change/revision control system in place.



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# Common Management Pitfalls



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## Additional Pitfalls

- A company does not have the technical expertise to develop a complete list of legal and other requirements.
- A company does not devote the appropriate amount of time to investigating root causes of nonconformances and ensuring that corrective actions are effective.
- A company does not want to invest the time or money to effectively train employees.



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# Top findings of Nonconformance for Recyclers



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## 4.3 Operational Controls

- Hazardous waste and universal waste regulations have not been considered or have not been implemented effectively.
- Lack of labels or incorrect labeling on product.

## 5.2 Nonconformance and Corrective and Preventive Action

- Not fully understanding the corrective action process
- Lack of identification on Nonconforming product.

## 1.2.3 Document and Recordkeeping Controls

- Document matrix is not up to date, old or missing rev levels, etc.

## 4.1 Training

### 4.3.2 Suppliers – Operational Controls

- Process for approving suppliers and use of approved suppliers

## 3.1 Identifying the QEH&S Footprint

- Incomplete list of Legal & Other Requirements.
- Incomplete EHS hazards identification and assessment and ongoing analysis.
- Lack of stormwater no exposure certification or stormwater permit.
- Lack of air and noise monitoring, when applicable.
- Not all chemicals have an MSDS on hand.

## 4.4 Emergency Preparedness

- Incomplete Emergency Preparedness and Response Plan (e.g. not all emergency situations identified, lack of periodic testing, lack of spill kits, etc.).

## 3.2 Improvement Planning

- Objectives are not quantifiable and measurable.



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# Integrated Audits



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- RIOS follows the Plan-Do-Check-Act Model
- Easily integrated with ISO 14001 and R2
- Integrated audits help to reduce overall costs



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# RIOS Certification



## Certification Steps:

- Training to RIOS requirements
  - Staff
  - Internal Audits
- Create RIOS documents or integrate with existing systems (e.g. ISO 9001, 14001, R2 or OSHAS 18001)
- Implement RIOS requirements
  - Conduct internal audits of system
  - Conduct compliance evaluation
  - Conduct review of system based on input from internal audit
- Contract with a certification body
- Complete S1 and S2 audits
  - Address any nonconformities → 😊 Certification!



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# Certification Process



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The initial audit consists of two stages:

- Stage 1:
  - On-site document review of your QEH&S
  - Evaluates the readiness of your organization to move to stage 2.
- Stage 2:
  - Scheduled 30 to 75 days after the stage 1 audit.
  - On-site audit of your entire QEH&S.
  - Nonconformities will need to be resolved prior to issuing of the certificate.



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# Certification Process



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- Surveillance audits
  - Scheduled at either six or twelve month intervals depending on the contract.
  - Partial system audit.
- Re-certification audit
  - On-site audit conducted prior to the third anniversary of the initial certification
  - Surveillance visits will then continue, as before, on a 3-year cycle.



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# RIOS Lead Auditor Class



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## NEW !!!

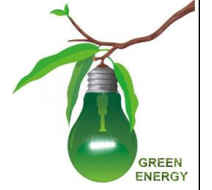
- An Accredited Online RIOS Lead Auditor Course
  - Accredited by ISRI
  - Course fee \$295
  - ~6-8 hr online course
  - Certificate of completion provided to those who pass the exam
  - Go to <https://pjtraining.digitalchalk.com> to sign up
  - Additional information will be available on [www.pjr.com](http://www.pjr.com)



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# Questions



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# Contact Information



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