

e-Stewards® Version 3.0

Overview of changes and release of V.3.1







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Welcome from PJR Headquarters:

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- Introduction of speaker
- Audience for today's meeting

Agenda:

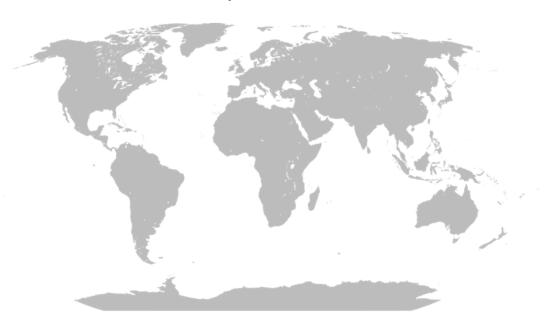
- About PJR
- Benefits and Drivers
- Transition timelines
- Key changes
- Clause-by-clause overview
- CertificationProcess/Requirements
- Questions





PJR is a leading Registrar

- PJR is one of the leading Registrars in the world
- A few countries where PJR has certified companies to various standards:
 - Australia
 - Brazil
 - European Union
 - Japan
 - India
 - Malaysia
 - Mexico
 - Singapore
 - Thailand
 - United States





PJR is accredited to grant certification for:

- ISO 9001
- ISO 14001
- AS 9100, 9110 & 9120
- ISO/TS 16949
- Responsible Recycling (R2)
- RIOS
- ISO 13485
- SQF

- TL 9000
- OHSAS 18001
- ISO 27001
- ISO 22000
- HAACP Compliance
- FSSC 22000
- e-Stewards[®]





Benefits of Getting Certified

- Meeting legal requirements and improving the organization's environmental performance
- Management commitment and employee engagement
- Business management, notably for meeting stakeholder requirements, improving public image, achieving strategic objectives, and integrating with business management systems
- Supplier environmental performance
- Providing a competitive advantage
- Providing financial benefit(s)



ISO 14001 Drivers

- Commitment to environmental protection/conservation
- Reduction of risk of adverse environmental impact
- Business management drivers, including public image
- Framework for meeting customer and/or regulatory requirements





e-Stewards® Drivers

- Commitment to prevention of irresponsible or illegal handling of hazardous waste or e-waste streams
- Reduction of environmental, occupational health & safety, data security, and social accountability risks
- Advertising of responsible management of electronics and electronic components





E-Stewards® Version 3.0 transition

- e-Stewards V. 3 was published on March 15, 2017
- Transition deadline has already past (September 15, 2018)
- All audits conducted after January 1, 2018 must be to e-Stewards® V. 3.0.
- e-Stewards V. 3.1 was published on August 15, 2018







ISO 14001:2015 – Why was the standard revised?

- Market relevance Any Management System Standard should meet the needs of, and add value for, the primary users and other affected parties.
- Compatibility Compatibility between various Management System Standards and within a Management System family should be maintained.
- Ease of use It should be ensured that the user can easily implement one or more Management System Standards.
- *Topic coverage* should have sufficient application coverage to eliminate or minimize the need for sector-specific variances.
- Flexibility should be applicable to organizations in all relevant sectors and cultures and organizations of every size.





ISO 14001:2015 – Why was the standard revised?

- *Technically sound basis* should be based on proven management practices or existing scientifically validated and relevant data.
- Easily understood should be easily understood, unambiguous, free from cultural bias, easily translatable, and applicable to businesses in general.
- Free trade should permit the free trade of goods and services.
- Applicability of conformity The market need for first-, second- or third-party conformity assessment, or any assessment combination thereof, should be assessed.
- Exclusions should not include directly related product (including services) specifications, test methods, performance levels (i.e. setting of limits) or other forms of standardization for products produced by the implementing organization.





e-Stewards®— Why was the standard revised?

- To incorporate the changes to ISO 14001:2015 and the new ISO structure, for ease of implementation and integration
- To incorporate Sanctioned Interpretations published as amendments to Version 2.0
- To add various improvements to the standard language and/or requirements





Annex SL - Structure

- Scope
- Normative References
- Terms and Definitions
- Context of the Organization
- Leadership
- Planning
- Support
- Operation
- Performance Evaluation
- Improvement

Annex SL common terms

organization

interested party (preferred term) stakeholder (admitted term)

requirement

management system

top management

effectiveness

policy objective

risk

competence

documented information

process

performance

outsource (verb)

monitoring

measurement

audit

conformity

nonconformity

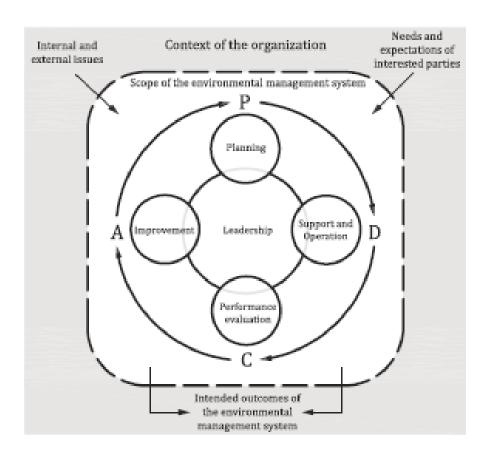
correction

corrective action

continual improvement



ISO 14001 PDCA model







Key changes in ISO 14001:2015

- The emphasis on leadership
- The focus on risk management
- Emphasis on objectives measurement and change
- Communication and awareness
- Fewer prescriptive requirements







Key changes in e-Stewards V.3

- The removal of footnotes (to be replaced within a guidance document)
- Future revisions will be published in a new version of the complete standard (named V 3.1, etc.)
- Changes to top management responsibility(ies)
- Changes to compliance evaluation schedule requirements
- Changes to and clarifications of import and export requirements



Key changes in e-Stewards V.3 (continued)

- Changes to requirements for downstream management planning and accountability
- Changes to emergency plan requirements
- Changes to internal communication requirements
- Addition of asbestos-containing equipment to the list to avoid shredding
- Addition of monitoring and measuring schedule requirements





Key changes in e-Stewards V.3 (continued)

- Changes to requirements related to tracking of nonconformances
- Changes to material balance accounting requirements
- Changes to internal auditor qualification requirements
- Restored requirements removed from ISO 14001:2004 in the 2015 revision, such as documented procedures/records, and preventive actions
- Changes to both Appendices B and C



Key term changes in e-Stewards® V.3

Organization

- person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives (3.2.5). In addition, an e-Stewards organization is an eligible entity that is either a candidate for certification to the e-Stewards Standard, or is currently registered as a certified e-Stewards entity. An organization includes all assets, property, and operations of the entity, including Ancillary Sites.
- Note 1 to entry: The concept of organization includes, but is not limited to soletrader, company, corporation, firm, enterprise, authority, partnership, charity or institution, or part or combination thereof, whether incorporated or not, public or private. <u>For e-Stewards purposes, however, a 'sole-trader' is not eligible to be an</u> <u>organization.</u>
 - → In other words, <u>a broker cannot be eligible for e-Stewards® certification</u>



Key term changes in e-Stewards® V.3

Compliance obligations

legal requirements and other requirements (admitted term)

- legal requirements (3.2.8) that an organization (3.1.4) has to comply with and other requirements that an organization has to or chooses to comply with, including e-Stewards prohibitions and restrictions beyond laws
 - → For example, the Basel Ban Amendment (even though the US has not ratified the Basel Convention)





Key term changes in e-Stewards® V.3

Significant Change

- Includes, but is not limited to, any changes that could materially affect the
 organization's commitments to customers, compliance with laws,
 detrimental impacts on human health and the environment, and its ability
 to remain in conformity with the e-Stewards Standard
 - → Significant changes are to result in the conducting of a new risk assessment, and must be reported to the CB and e-Stewards program administrator





Key term changes in e-Stewards® V.3.1

Downstream Provider (previously "Downstream Processor") (DP)

- Now includes Final Disposal facilities
- Still excludes Intermediaries

Final Disposition

- Expanded definition
- The last facility or operation in the e-Stewards Recycling Chain at which an HEE, PCM, or HEW either:
 - a. Ceases to be a waste by being Processed into a Commodity;
 - b. Is prepared for Direct Reuse by completing reuse requirements in this Standard; and/or
 - c. Has arrived at Final Disposal and is finally disposed, <u>including hazardous</u> <u>processing residuals</u>, e.g. ash, filter cake, and slag.





Terms related to support and operation

Risk

- Effect of uncertainty.
 - Note 1 to entry: An effect is a deviation from the expected positive or negative.

Risks and opportunities

• Potential adverse effects (threats) and potential beneficial effects (opportunities)





Terms related to support and operation

Life cycle

- consecutive and interlinked stages of a product (or service) system, from raw material acquisition or
- generation from natural resources to final disposal.
 - Note 1 to entry: The life cycle stages include acquisition of raw materials, design, production, transportation / delivery, use, end-of-life treatment and final disposal.
 - [SOURCE: ISO 14044:2006, 3.1, modified The words "(or service)" have been added to the definition and Note 1 to entry has been added.]





Terms related to performance evaluation and improvement

Environmental performance

- Performance (3.4.10) related to the management of environmental aspects (3.2.2)
 - Note 1 to entry: For an environmental management system (3.1.2), results can be measured against the organization's (3.1.4) environmental policy (3.1.3), environmental objectives (3.2.6) or other criteria, using indicators (3.4.7).





- **Strategic Environmental Management** There is an increased prominence of environmental management within the organization's <u>strategic</u> <u>planning processes</u>.
- **Leadership** To ensure the success of the system, a new clause has been added that assigns specific responsibilities for those in leadership roles to promote environmental management within the organization.





- **Protecting the environment** The expectation on organizations has been expanded to commit to proactive initiatives to protect the environment from harm and degradation, consistent with the context of the organization. The revised text does not define 'protect the environment' but it notes that it can include:
 - prevention of pollution,
 - sustainable resource use,
 - climate change mitigation and adaptation,
 - protection of biodiversity and ecosystems.





- **Environmental performance** There is a shift in emphasis with regard to continual improvement, from improving the management system to improving environmental performance.
- Lifecycle thinking In addition to the current requirement to manage environmental aspects associated with procured goods and service, organizations will need to extend its control and influence to the environmental impacts associated with product use and end-of-life treatment or disposal.





- **Communication** The development of a communications strategy with equal emphasis on external and internal communications has been added.
- Documentation Reflecting the evolution of computer and cloud based systems for running management systems, the revision incorporates the term 'documented information', instead of 'documents' and 'records'. To align with ISO 9001, the organization will retain the flexibility to determine when 'procedures' are needed to ensure effective process control.





4.1 "Understanding the organization and its context"

- Requirement to determine external and internal issues [...] that affect its ability to achieve the <u>intended outcomes</u> of the system
 - > Intended outcomes are identified in the Foreword of the standard
 - → Issues include both positive and negative, and present or future, conditions

4.2 "Understanding the needs and expectations of interested parties"

- "Interested parties" refers to a wider range, and can include workers and their families, contractors, volunteers, drivers, customers and/or end users, suppliers, regulatory agencies, surrounding communities, etc., as well as the ecosystem
- The e-Steward must identify which needs and expectations will be included in the risk assessment





4.3 "Determining the scope of the EHSMS"

- Adds health, safety, data security, and social accountability considerations to the ISO 14001 requirements
- Includes Ancillary sites
- Applies to all EE that comes under the e-Steward's control, regardless of ownership

4.4 "Environmental Health & Safety Management System"

- Must be <u>documented</u>
- Include items such as: a "precautionary" approach, reducing negative life cycle impacts (<u>not necessarily a life cycle assessment</u>) that can be controlled or influenced, and transparent dispositions
 - → Precautionary principle means taking action(s) to prevent exposure even if it has not been scientifically proven, such as implementing controls for shredding plastics with suspected BFR exposure





5.1 "Leadership & commitment"

- Accountability at all levels and functions (even middle management)
- Communication of the importance of adhering to EMS requirements

5.3 "Organizational roles, responsibilities & authorities"

- Must be <u>documented</u>
- Evaluate performance/effectiveness
- Workers to have opportunities to identify hazards, etc.
- EHSMS team responsibilities are expanded
 - → Including hazard analyses/risk assessments, objectives, EHSMS effectiveness, communication, investigations, management of change, etc.





6.1.1.1 "Conduct a risk assessment"

- Required initially, every 3 years, and with Significant Changes
- Includes Ancillary sites and all operations under its control
- Inputs are defined and expanded
- Emphasis on climate change and sustainability of resource usage

6.1.2 "Environmental and Stewardship Aspects"

- Requires <u>documented</u> procedure(s) removed by ISO 14001:2015
- Prioritization for action

6.1.3 "Compliance obligations"

- Workers must have access to compliance obligations applicable to their work (via work instructions, training, etc.)
- Requires a <u>documented</u> compliance evaluation schedule





6.1.3.1 "Export, Transit, and Import Compliance Obligations"

- Now applies to shipments of PCMs (as applicable)
 - → <u>PCM shipments shall also be prohibited</u>, wherever any country involved prohibits the transboundary movement of HEWs or hazardous wastes
 - → Halogenated Material plastics may be an exception (under the requirements of clause 8.8.2.1.a)
- e-Stewards are required to meet BAN Amendment requirements

6.2.1 "Environmental & stewardship objectives"

- Objectives <u>and targets</u> are to be updated at least <u>annually</u>
- Documentation of an action plan or schedule for each objective





6.2.3 "Planning for responsible management of Electronic Equipment"

- Must identify acceptable and unacceptable countries to import from, and controls required to meet compliance obligations and aspects for each type of EE
- Focuses on incoming material (important for Sales/Procurement)

6.2.4 "Planning for responsible downstream management of HEWs and PCMs"

Focuses on outgoing material (important for downstream)

Note: e-Stewards may choose to combine the EE and HEW/PCM plans.





6.2.5 "Planning for site closure"

- Requires up-to-date, documented financial instrument information
 - → Must provide annually to e-Stewards (clause 9.1.8)
- V.3.1 revision: The plan shall include:
 - d) Up-to-date written information identifying:
 - 4. All assets (if applicable) to be used as collateral to secure a financial instrument as required in 6.2.6





6.2.6 "Establishing financial surety to implement site closure plan"

- Must include:
 - the disposition of EE inside and outside the facility,
 - the disposition of EE Ancillary Sites,
 - the disposition of EE and in transport
- Hazardous materials cannot be used as collateral or asset value for covering closure costs
- V.3.1 revision: All assets used as collateral must be wholly owned by the organization. They must also be legally designated for the intended site closure, even in the event of bankruptcy.





7.2 "Competence"

- Evaluate training effectiveness
- Orientation training requirements:
 - for workers,
 - for those working on the company's behalf who are new to the organization, and
 - upon changing roles or departments

7.3 "Awareness"

 Workers should be aware of their role in the implementation of the policy, and the consequences of not conforming to the requirements of the FHSMS





7.4 "Communication"

 Requirements are more detailed for the who/what/how(s) of internal and external communications, especially for employees and contractors/visitors who come on-site

7.5.2 "Creating and updating EHSMS documentation"

- Requires a <u>documented</u> procedure
- Must include a description of the changes, revision status, approval prior to use, and regular reviews/re-approvals

7.5.3 "Control of documented information"

Includes retention timeframes and the removal of obsolete versions from use





8.1 "Operational planning and control"

- Emphasis on documentation to effectively implement the EHSMS
- Requires a <u>documented</u> procedure
- Requires timely responses to new or changing information
- May need to provide environmental and stewardship information regarding the impact of:
 - the transportation and/or delivery,
 - use,
 - reuse (of reclaimed HEEs in new products), and
 - end-of-life treatment and/or final disposal of its products and services
- Expanded life cycle review to include alternative uses of toxic materials





8.2 "Emergency preparedness & response"

- Requires a <u>documented</u> plan
- Specifies items to be included in the plan, including but not limited to:
 - ensuring data security in the event of an emergency,
 - accidents, fires, and explosions in and around the facility,
 - Conducting regular emergency and spill response drills

8.3 "Industrial Hygiene"

- Requires controls for the <u>prevention of migration of hazards</u> (such as to break rooms, employees' homes, etc.)
- Must respond quickly to new or emerging Industrial Hygiene (IH) concerns





8.3.1 "Airborne hazards"

- Requires continual improvement of air quality (if possible)
- Specifies operational control requirements, including releases related to filters

8.3.4 "Noise hazards"

- Must <u>retest after implementation</u> of noise controls, and implement additional controls if noise levels are still above the Exposure Limit
- Requires annual testing if the implementation of controls will take longer than 3 months





8.4.1 "Restrict or disallow mechanical Processing of these Hazardous Electronic Equipment (HEE) and Problematic Components and Materials (PCMs)"

 Adds <u>asbestos-containing EE</u> (such as certain knob & tube wire insulation, or old heating equipment) to the list of materials that <u>cannot be shredded</u> (without a closed system)

8.5.3 "Sanitize all Customer Data"

Requires training for mobile shredding and data sanitization personnel





8.6 Reuse and Refurbishment of Electronic Equipment

• V.3.1 revision: The organization shall retain responsibility for completion of these requirements prior to EE going into reuse, regardless of whether or not the organization outsources any of the associated activities to an End Refurbisher.





8.6.1 "Test Electronic Equipment and ensure Full Functionality & data sanitization"

- Must test all EE (not just HEE & PCMs) for reuse (exceptions can be found in Table 5)
- Removes the requirement to take back exported HEEs
- V.3.1 revisions:
 - Slight changes to item #2 regarding battery testing/criteria
 - Additional requirements related to non-removable batteries:
 - A reputable 3rd party software must be used to test the battery to ensure only those with a "good" rating are sent for reuse
 - In equipment designed to include both a removable and non-removable battery(ies), failed non-removable battery(ies) can remain in place <u>if</u> full functionality is achieved through the removable battery(ies) <u>and</u> the nonfunctionality of the non-removable battery is disclosed to the buyer





8.7.2 "Alternative uses & processes for HEE and PCMs"

- Adds additional requirements for alternative uses/process for HEEs and PCMs, including to conduct and document:
 - a regulatory and literature review,
 - life cycle review of risks and impacts,
 - downstream due diligence on the alternative use facility (and its Recycling Chain), and
 - written approval from the e-Stewards administrator
- Remember: An operating permit does not constitute evidence of a best practice





8.8 "Export & import controls"

- Version 3.0 organizes export and import controls by category
- Adds a section regarding exports for repair to End Refurbishers
- Remember: the HEW definition includes <u>all hazardous waste</u> identified by national laws within the counties involved in trade
- Trade of HEWs and applicable PCMs is prohibited between party members (such as OECD/EU countries or Liechtenstein) and nonparty members, <u>regardless of consent from a Competent Authority</u>
- Trade from developed to developing countries is still banned, no significant changes in this subject area (8.8.1.b and 6.1.3.1.a)
- Remember: no consents are acceptable if trade is prohibited
 - → Example: Basel BAN Amendment





8.8 "Export & import controls" (ctd.)

- No longer required to obtain an import permit for plastics recycling, but instead must obtain evidence that the country does not ban halogenated plastic imports
- Export/import of cullet used to make <u>new</u> CRTs is now allowable (8.7.2 applies)
- If <u>new</u> EE is <u>under warranty</u> and fails or is defective, returns may be made without adhering to the requirements of 8.8.1-2 (where trade is legal)
- Export requirements for reuse now pertain to exports for repair, and have added requirements related to:
 - Data Security (8.5)
 - Export (8.8.1-2)
 - Downstream Accountability (8.9)





8.8.2.1 Control exports & imports of materials allowed under certain conditions

 V.3.1 revision: New parts/devices purchased for repair, replacement, or a money-back warranty are now also exempt from 8.9 (in addition to 8.8.1 and 8.8.2) if prescribed criteria are met

8.9.3 "Conduct ongoing Due Diligence on IDPs"

- Reorganized, to reflect chronological requirements and differentiate between downstream e-Stewards and facilities without e-Stewards® certification
- Transporters of HEWs to IDPs (and beyond, in 8.9.4) must be authorized, adequately respond to accidents, have adequate financial resources in the event of an accident, etc.
- <u>EE is not to be processed by any company in the Recycling Chain that has lost their e-Stewards® certification, unless or until it is re-instated</u>
- V.3.1 revision: Removed the section regarding an allowance to send untested or non-functioning EE for repair or refurbishment to a domestic End Refurbisher without initial on-site audits





8.10 "Insurance"

 Specific insurance qualification requirements have been identified, and must include familiarity with electronics recycling/refurbishing industry risks, and insurance/financial regulations and best practices





9.1.1 "General/Monitor and measure performance & operations"

- Restores the requirement for a written procedure
- Must include accidental breakage of HEE, and any associated cleanup required
- Must include a schedule for monitoring those operations with a significant impact

9.1.2 "Evaluation of compliance"

- Restores the requirement for a written procedure
- References the new compliance evaluation schedule requirement (6.1.3.e)

9.1.3 "Monitoring the status & effectiveness of objectives"

Requires active monitoring of objectives





9.1.4 "Track nonconformity, near misses, preventive & corrective action

- Additions to logging requirements identified in V. 2.0, including (but not limited to) NCRs, security breaches, and NCP received
 - → This may be met using one or several logs

9.1.5 "Facility Inspections"

 Must go beyond verifying operational and housekeeping controls, to ensure procedures are implemented at all levels

9.1.6 "Additional IH monitoring if using PHPTs"

Must submit risk assessment and IH results to a medical professional at least annually





9.1.7 "Track Electronic Equipment"

- Must calculate a mass balance at least every 6 months, producing one final discrepancy in the form of a percentage
 - → <u>Discrepancy should equal no more than 5%</u>

9.1.8 "Report to e-Stewards database"

 A copy of the closure plan (6.2.5) must be submitted to the e-Stewards® program administrator for each Processing facility (V.3.1)

9.2.1 "General/Conduct internal audits"

- Internal auditor qualification requirements
- Internal audit must yield identification of EHSMS strengths and OFIs
- Annually audit the entire EHSMS
- Must include an agenda for each audit, and records of auditor qualifications





9.3 "Management review"

- Top management evaluation of the EHSMS, ensuring actions taken and resource allocation support continual improvement
- Minor changes to agenda items consistent with section 4.2
- Restores preventive actions from V. 2.0
- Inputs and outputs must include:
 - IH monitoring
 - internal audit results
 - facility inspections
 - conformity to the policy(ies)





10.1 "General/Effectiveness of management system"

Calls for proactivity

10.2 "Nonconformity, preventive, and corrective action"

- Restores the requirement for a written procedure
- Restores preventive actions from V. 2.0





Appendix A "Additional Requirements for e-Stewards Organizations"

 No significant changes, although some content was moved into the body of the Standard under relevant sections

Appendix B "Administrative Requirements for e-Stewards Organizations"

- Home-based operations are not eligible for certification
- Changes to corporate certifications, now termed country wide certification of multi-sited organizations (section d), and <u>now extends</u> to entities owned by spouses
- Applicants <u>must submit an ownership chart to the CB</u> (including all entities and their legal relationships) (section e)
- Specifies application requirements, which must be submitted to the e-Stewards program administrator prior to the Stage I audit
- Requires <u>annual</u> license agreements/updates (in most cases, one for each country) (Appendix C section f)





Appendix B "Administrative Requirements for e-Stewards Organizations" (ctd.)

- V.3.1 revisions:
 - The e-Stewards program administrator will suspend the licensing agreement for an organization when their CB has suspended the certificate, and will only restore it when (if) the certificate is reinstated.
 - If the e-Stewards program administrator has issued a Critical Nonconformity to an organization, the CB is required to withhold, withdraw, or suspend (as applicable) the e-Stewards certificate until the CNC is formally closed by the program administrator.
- "Significant Changes" must be reported to the CB and the e-Stewards program administrator (<u>info@e-stewards.org</u>) <u>within 5</u> <u>business days</u>
- Remember: a documented procedure for unannounced Performance Verification (PV) inspections is required





Appendix C "Requirements for e-Stewards CBs and ABs"

- New versions of the Standard will be published to reflect changes, instead of Sanctioned Interpretations (to be emailed for free to those who have purchased V. 3.0)
 - V.3.1 revision: A current email address must be maintained by the e-Stewards program administrator to receive this courtesy copy.
- Reiterates requirements for applications, ownership chart submission, annual License Agreement execution, etc. (Appendix B)
- Adds consequences if the 18 month time limit for certifying all facilities is not met
- Adds requirements for multi-national sampling
- Site sampling is <u>not</u> permitted during initial certification, but <u>may</u> be allowed for subsequent audits
- V.3.1 revision: additional competency and on-going training requirements for CB auditors and personnel





Appendix D "e-Stewards Sanctioned Interpretations"

Cites the sections affected by changes between V.3 and V.3.1



Certification Steps

- Purchase the Standard
- Establish EHSMS documentation to meet e-Stewards® requirements
- Training to EHSMS requirements
- Implement EHSMS requirements
 - Conduct internal audits of system
 - Conduct compliance evaluation
 - Conduct review of system based on input from internal audit
- Contract with a Certification Body (CB)
- Complete Stage I and Stage II audits, and address any resulting nonconformities
 - → © Certification issuance







Certification Process

The registration audit consists of two stages:

- Stage I:
 - On-site document review of your EHSMS (may be required to be submitted to PJR prior to Stage I)
 - Evaluates the readiness of your organization to move to Stage II
- Stage II:
 - Scheduled 30 to 60 days after the Stage I audit
 - On-site audit of your entire EHSMS
 - Any nonconformities will need to be resolved prior to certificate issuance



Certification Requirements

- 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



Please type any questions you may have.







For additional technical information, please contact Stacey DeSantis or myself using the below contact information:

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