

e-Stewards Standard V4.1 Guidance

This document is provided by e-Stewards to provide interpretive guidance to the e-Stewards Standard. It does not create additional binding requirements but does offer clarification regarding the intent and purpose of individual sections of the Standard, as well as recommendations and information to assist with implementation.

If these recommendations are not followed, auditors should seek reasons why that is the case, and evaluate whether any alternative method or operation is deemed congruent with the intent of the Standard.

In some instances, as the Standard stipulates compliance with legal or regulatory requirements, guidance for meeting such requirements may also be included in this document.

This Guidance is designed to be a living document with new information being added on an as-useful basis. Any stakeholder can contact e-Stewards and request additional guidance on any subject and that guidance may be considered for acceptance into this document to help future e-Stewards Certified Recyclers and Refurbishers.

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3.1 Ancillary Sites

Includes facilities for collection, receiving, sorting, consolidating, warehousing, storing, cross-docking, administration, retailing, and wholesaling, as well as websites that are designed to sell or donate Electronic Equipment. All ancillary sites (actual and virtual) need to be reported to the auditor at the outset of the certification process.

3.2 Annual

Every year on or before the same date, but not after. Remember that Annual due dates do not reset if their deadline is missed.

3.6 Control

Storing includes offsite and leased storage, as well as storage at Ancillary Sites

Immediate Downstream Providers (IDPs) performing data sanitization for tolling customers are considered to be under the Control of the Organization (per 8.9 of the standard).

3.7 Customer Data

Equipment or components that are capable of holding Customer Data may also be referred to as data-bearing equipment/components, or data storage devices

3.8 Designated Health Provider

Medical authority: a medical expert that is licensed within their jurisdiction to diagnose and prescribe medicine or medical products.

3.10 Downstream Provider (DP or DSP)

Final Disposal facilities are considered Downstream Providers, even if they are not End Processors. (See definitions 3.14, 3.17 and 3.18.)

In-country facilities owned by the Organization are not considered Downstream Providers

3.11 e-Stewards Processor

Requisite audits: successful completion of Stage 1 and Stage 2 audits, which occur prior to e-Stewards signature on License agreement

3.12 Electronic Equipment (EE)

EE is the material scope of this standard. Examples of materials not considered EE due to containing ozone-depleting substances, fuels or gases include refrigerators, air conditioners, gas powered dryers, gasoline powered lawn mowers etc. However, loose circuit boards removed from these or from any source would be considered EE, as they will not contain the gases or fuels and are dependent on electric currents in order to function.

3.13 Electronic Waste

This definition also includes new or used Electronic Equipment and/or components that are untested or known to not be fully functional.

3.14 End Processor

A Provider can be an End Processor for a given material stream, without being one for other material streams

An End Processor may not be the end of the Recycling Chain if it produces residuals that are sent somewhere else for Final Disposal.

3.17 Final Disposal

A subset of Final Disposition, involving materials that cannot or will not be reused or processed into Commodities. Examples include landfilling and waste-to energy or other incineration.

3.18 Final Disposition

Examples of Final Disposition operations include Refurbishers, smelters, glass furnaces, landfills, incinerators, etc. Final Disposal is a subset of Final Disposition (see 3.17).

3.19 Fully Functional/Full Functionality

Based on the Basel definition in *Technical guidelines on transboundary movements of electrical and electronic waste and used electrical and electronic equipment, in particular regarding the distinction between waste and non-waste under the Basel Convention* (UNEP-CHW.12-5-Add.1-Rev.1.English) as referenced in the Basel Convention [Glossary of Terms](#) (see Direct Reuse Definition).

3.19 (b)

Examples of structural issues include cracked casings, damaged wire sheathing, etc.

3.21 Hazardous Electronic Waste or Hazardous e-Waste (HEW)

HEW includes residuals and byproducts of Processing that may be hazardous, including certain types of plastics, chemicals, etc.

3.21(c)(6)

Examples of such plastics include Y48 of Basel Annex II, (which include mixed and dirty plastics) etc. For more information on this, see [e-Stewards webinar](#) on this new Basel listing (<http://e-stewards.org/learn-more/for-recyclers/media/recent-changes-at-the-basel-convention-and-their-impacts-on-electronics-recyclers-webinar/>).

Note that, under the definition of Y48, uncontaminated single-polymer plastics are not considered HEW unless they are halogenated (e.g., PVC) or destined for anything other than mechanical recycling. All relevant export paperwork must accurately reflect the type of polymer for each lot. See also guidance for 6.1.3.1.

3.22 Immediate Downstream Provider (IDP)

IDPs are typically Processors or Final Disposal facilities, as they, by definition, do not include Intermediaries.

Providers of outsourced processes are considered Immediate Downstream Providers, as long as no other processor is used in between the Organization and the provider. The same IDP requirements apply for those who handle Electronic Equipment capable of holding data as for those handling MOCs.

3.25 Key Function(s)

Based on the Basel definition in *Technical guidelines on transboundary movements of electrical and electronic waste and used electrical and electronic equipment, in particular regarding the distinction between waste and non-waste under the Basel Convention* (UNEP-CHW.12-5-Add.1-Rev.1.English) found [here](#).

3.29 Materials Recovery

A Processor performing Materials Recovery is the End Processor for those materials, though it may not be for byproducts or residuals generated during the processing.

3.32 Potentially Hazardous Processing Technologies (PHPTs)

See A.8.3.1 for types of PHPTs

3.36 Processing

Processing and Recycling are not the same thing; Recycling is a type of Processing.

Testing under this definition refers to assessing equipment for functionality. Assaying for material content is not considered Processing.

3.38 Qualified Auditor

Competence may be acquired through training, relevant work experience, experience as an auditor, etc.

3.39 Qualified Smaller Components (QSCs)

Per this definition, equipment cannot qualify as QSC if it contains batteries, however, once any batteries present have been removed it may then qualify as QSC.

3.41 Recycling Chain

The Recycling Chain for Electronic Equipment begins upon its entry into the Organization's Control and ends with Final Disposition for the associated MOCs.

See relevant definitions for clarification of elements in the Recycling Chain (Downstream Providers, Final Disposal facilities, Intermediaries, etc.)

3.42 Repair/Refurbishment

Repair/Refurbishment activities include cleaning, data sanitization, software and hardware changes or upgrading, fixing hardware faults, replacing or removing faulty or unwanted components, remanufacturing, removal of identifying labels/stickers, Repurposing, functionality testing, etc.

3.43 Repurposing

Other examples of Repurposing include combining CPUs or motherboards for use as a network server, phones used as wireless hotspots, etc. Repurposing does not include use as anything other than functional Electronic Equipment (for example, equipment used as a doorstop, paperweight, artwork, etc., does not qualify as Repurposed equipment).

3.45 Significant Change

Examples of Significant Change include changes in ownership, management, location of facilities or Ancillary Sites, major emergencies, Processing methods, etc.

3.48 Tolling Operations

See guidance for 8.4.4

4.1 Stewardship Management System

Remember that an Organization can be either an e-Stewards Certified Processor or a company preparing for e-Stewards certification.

Interested parties workers (including contractors and volunteers), drivers, families of workers, visitors to the Organization's facilities, customers, suppliers and service providers, Downstream Providers, regulators, surrounding communities, the ecosystem, etc.

Documented scope: The scope on CB-issued certificates is a summary of the processes verified by the Organization's certification; the documented scope required by this section describes and expands on what is included in that verification.

5.3 (b) Organizational Roles, Responsibilities, and Authority

"...all relevant levels...": a management review team, for example, does not need shop employee representation

6.1.1 Risk assessment

Workplace hazard assessments are also called job hazard analyses, or job risk evaluations.

Specific training and/or qualifications are not stipulated for performing risk assessment(s), as the risks associated with each individual Organization can vary dramatically. Options for conducting assessments include choosing from the numerous risk assessment templates that can be found online, developing internal methodology, or hiring a third party or parties if Management does not feel sufficient experience, skill, or knowledge is available to assess a given area using in-house personnel.

6.1.1 (a)

Environmental impacts: Stormwater runoff, air emissions, sustainable resource use, climate change impacts, etc.

6.1.1 (b)

Physical hazards: Ergonomic issues, noise, vibration, falls, temperature extremes, etc.

6.1.1 (c)

Chemical hazards: hazards listed in 3.21 (HEW), etc.

Examples of places where hazards may migrate include changing rooms, breakrooms, restrooms, offices, etc.

6.1.1 (e)

Operational risks: housekeeping practices, individuals' work habits, accidental breakage, etc.

6.1.1 (f)

Examples of possible data releases include, but are not limited to:

- Theft or loss of unsanitized equipment
- Use of removable media to take data from an asset
- Sale of an unsanitized asset
- Sale of an asset that contains an unidentified databearing device (e.g., a small drive soldered onto a circuit board)
- Phishing, malware, etc. that gains access to systems

6.1.2 Stewardship aspects

In other words, the Organization is required to both identify the aspects and impacts associated with their business, and to prioritize and take action on those aspects it has determined to be significant.

6.1.3 Compliance obligations

Examples include customer contracts, DSP agreements, local, state, federal, and international laws & regulations (including GDPR), management system standards, etc.

6.1.3.1 International Waste Trade Agreements and National Laws

When an Organization intends to be involved in the transboundary movement of e-wastes, either directly, or through the handling of others downstream from their Control, many laws may be invoked that govern the movements of hazardous and sometimes, other types of waste. These can be national laws, such as the Chinese national import ban on wastes (National Sword), or they can be regional, bilateral, or multilateral agreements such as the Basel Convention.

Note: Detailed information about some of these agreements and laws can be found below in Part B.

The most common cases can be framed in terms of "Dos and Don'ts" to explain what is allowable and not:

BASIC DOs and DON'Ts / INTERNATIONAL WASTE TRADE

A. Basel Convention and OECD Council Decision.

Because the Basel Convention is a fundamental legal restraint to trade in many electronic wastes, and at the same time a major generator country – the United States – is not Party to this Convention, it is useful to provide clear guidance for

organizations in two different categories: 1) Exports from a Basel non-Party and 2) Exports from a Basel Party of what is acceptable under the e-Stewards Standard.

– Exports from a Basel non-Party (e.g. the United States) to a Basel Party

1. All MOC exports from non-Parties (e.g., United States) to Basel Parties are forbidden as these violate the Basel Convention's trade ban for Basel-controlled wastes between Parties and non-Parties (e-Stewards applies this to all MOCs).
2. The exception to this rule is when the exports take place under a separate valid Basel Article 11 agreement. One such agreement is the **OECD Council Decision (OECD/LEGAL/0266)** which includes the United States and accommodates trade in recyclable waste between OECD countries. When using the OECD agreement, its obligations and notification and consent requirements need to be followed. Be aware that the new Basel Plastics Amendments have not been included in the OECD agreement except for the listing for hazardous plastic (A3210). For this reason, using OECD destinations may require the exports to be listed as A3210, regardless of hazardousness.

– Exports from a Basel Party to Another Basel Party

1. MOC exports from a Basel Annex VII country (Member state of OECD, EU, Liechtenstein) to a non-Annex VII country are forbidden due to Article 4a of the Basel Convention (e-Stewards applies Article 4a to all MOCs).
2. All other exports of MOCs between Basel Parties are allowed, following the normal notification and consent procedure of the Basel Convention.
3. Basel Parties that are OECD member states may choose to utilize the OECD agreement noted above to streamline their trade in recyclable MOCs instead of the Basel Convention.

– Exports from a Basel Party to a non-Basel Party

1. All MOC exports from a Basel Party to a non-Party (e.g., United States) are forbidden as these violate the Basel Convention's trade ban for Basel controlled wastes between Parties and non-Parties (e-Stewards applies this to all MOCs).
2. The exception to this rule is when the exports take place under a separate valid Basel Article 11 agreement. One such agreement is the **OECD Council Decision (OECD/LEGAL/0266)** which includes the United States and accommodates trade in recyclable waste between OECD countries. When using the OECD agreement, its obligations and notification and consent requirements need to be followed. Be aware that the new Basel Plastics Amendments have not been included in the OECD agreement except for the listing for hazardous plastic (A3210). For this reason, using OECD destinations may require the exports to be listed as A3210, regardless of hazardousness.

– Only Legal Exports can be Allowed under e-Stewards

Despite the rules noted above, which apply to e-Stewards specifically, e-Stewards also requires all transboundary movements to be accomplished legally (6.1.3.1). This means that:

The exports taking place under the Basel Convention or OECD Council Decision will require country-to-country notifications and consents. Such notifications and consents cannot be accomplished by private entities, but must involve the communications between governments in the exporting, importing and transit states. Just because an organization believes something to be legal or illegal cannot be a definitive determinant. The applicable governments must agree to legality and in addition consent to the export/import.

B. Global, Regional, and National Laws or Agreements

The Basel Convention

The best-known multilateral agreement is the global agreement known as the [Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal](#) (Basel Convention). Almost every country in the world is a Party to the Basel Convention. Only the United States, and a handful of other countries are not. For a list of Basel Parties click [here](#).

Scope of the Basel Convention

The Basel Convention controls two different types of wastes – hazardous wastes, and other wastes. Hazardous wastes are defined in the Convention by consisting of certain constituents (Annex I) and at the same time possessing certain hazardous characteristics (Annex III). "Other wastes" are listed in the Convention under Annex II. The e-Stewards Standard has ensured that all electronic wastes that are likely to be hazardous or "other wastes" under the Convention are defined as HEWs in the Standard. The e-Stewards Standard has added some other wastes (PCMs; see 3.35) which are not explicitly listed in the Basel Convention for control as if they were hazardous wastes under the Convention. PCMs plus Basel controlled wastes make up what we consider Materials of Concern, which are subject to strict export controls under the standard including downstream of the e-Stewards Processor. If there is ever a question requiring legal certainty under the Basel Convention rules, the law, and not the standard, must be definitive for the purposes of the law.

Key Obligations of the Basel Convention

There are many obligations placed upon Parties to the Basel Convention, but the most important ones to be aware of include:

- 1. Party to non-Party Trade Ban (Article 4 and 5 of the Basel Convention):** This obligation does not allow transboundary movements of *hazardous or other wastes* to take place between Parties and non-Parties without a special agreement (Article 11) being in place. This means that the US cannot trade in hazardous and other wastes (including most e-waste) with Basel Parties except for trade destined for recycling in other members of the Organization for Economic Cooperation and Development (OECD). The special OECD Council Decision agreement which is considered an Article 11 agreement as well as a [small number of bilateral agreements](#) which constitute exceptions to the Party to non-Party Trade Ban. The US has ratified a number of bilateral agreements with some countries for the purposes of importing but not exporting wastes. One key effect of the Party to non-Party Trade Ban is that it is forbidden under the e-Stewards Standard to export HEWs and PCMs from the US to any Basel Party that is not also a member of the OECD. A list of Members of the OECD can be found [here](#).
- 2. Basel Ban (Article 4a of the Basel Convention):** In 2019 the Basel Convention was amended ([the Basel Ban Amendment](#)) to include a new Article (4a) and a new Annex 7 – a list of countries that are forbidden from exporting hazardous wastes to any country not on that list for any reason. Not all countries have yet ratified the new amendment. Nevertheless, in the e-Stewards Standard all Organizations must behave as if the country in which they operate has ratified the amendment (6.1.3.1(c)). One key effect of the Basel Ban is that countries that are Parties to the OECD or EU are forbidden from exporting hazardous wastes to developing countries (non-Annex 7).
- 3. Prior Informed Consent (Article 4 (1) (c) and Article 6 of the Basel Convention):** For exports of hazardous and other wastes that are not banned as per above, they can be exported or imported as long as notification is given to all exporting and transit states and consent to such import or transit received prior to export. The notification and consent must be between governments through the channels of their [competent authorities](#). Without proper notification and consent, the export is considered illegal traffic.
- 4. Duty to Ensure Environmentally Sound Management (Article 4 (2) (e) of the Basel Convention):** States concerned (importing, transit, or exporting) must ensure that the export and disposal or recycling of the waste

in question will be environmentally sound management as defined in the Convention. Without environmental sound management being assured, the export is considered illegal traffic.

OECD Council Decision (OECD/LEGAL/0266)

The [OECD Council Decision](#) was created to streamline the Basel control procedures for recycling trade that moves only between or through OECD member states. It is considered as a valid Article 11 Agreement under the Basel Convention. It is similar to the Basel Convention in scope with hazardous and other wastes being considered as "amber" wastes and all other wastes considered "green" listed waste. Only "amber" listed wastes require a form of prior informed consent allowing for pre-consented facilities and tacit consent wherein consent is considered given after a certain period. There are some important deviations from the Basel Convention's definitions with respect to electronic waste in the OECD agreement. One of these involves circuit boards etc. (Basel Annex VIII, A1180) being considered as a "green" listed waste in the OECD agreement. The OECD agreement includes the United States and thus is one of the only legal means by which US recyclers can export wastes from that country. Still, notification must be made via the US government to the recipient countries before such shipments can take place. These US requirements are found within the US Resource Conservation and Recovery Act (RCRA) [here](#).

In addition to the Basel Convention and the OECD Decision there are other regional agreements or national laws that can come into play. Organizations are encouraged to learn as much as they can about the applicable international, regional, and national laws. In that regard we provide the following information:

National Laws

The first step in the research on National laws should be the Basel Convention's non-exhaustive list of national import prohibitions/legislation [listed here](#). Apart from that, the website of the relevant government's environmental protection department or Ministry of Environment can be useful. All e-Stewards Organizations must honor the national laws of exporting, importing, or transit states. Bear in mind also that the Basel Convention recognizes national laws as part of the Convention's definition of hazardous waste (Art. 1 (1) (b)).

EU Waste Shipment Regulation

The European Union has legislation governing the Basel Convention, including the Basel Ban, and the OECD Council Decision, which is binding for all [member states](#) of the European Union. The e-Stewards Standard conforms more precisely to the EU legislation with respect to the trade prohibitions because both agreements ban the export of all hazardous and other wastes to non-Annex VII countries (developing countries).

Other Regional Agreements (Bamako Convention, Waigani Treaty, Izmir Protocol, Central American Agreement)

These agreements are also Basel Article 11 agreements because they aim to be stricter than the Basel Convention in order to prohibit and thus protect developing countries within their regions from being beset by imports of hazardous wastes for any reason. More information about these agreements can be found [here](#).

C. Other Considerations

The Hazardous /non-Hazardous Waste Question

For any of the above laws to apply, the materials in question must first be considered wastes and then they must be considered a "hazardous" or other type of controlled waste.

For the purposes of application of the e-Stewards Standard it is most prudent for exporters to assume the e-waste material they handle is a waste, and if the electronic equipment has not been first separated into various known non-

hazardous fractions (e.g., plastics, steel, aluminum) they should assume it is a hazardous waste (8.7.1(a)). However, should an Organization wish to assert that a certain e-waste fraction or type of electronic equipment does not meet the definition of HEW found in the standard they can accomplish this by conducting the test found in the definition on HEWs at 3.21.

The Waste/non-Waste Question

Wastes are defined in the Basel Convention, and the other similar agreements noted above, by their destination operation. In Basel these operations are listed in Annex IV Wastes on Annex IV can go to either final disposal operations (List IV A) or recovery/recycling operations (List IV B). Materials that are not wastes but rather commodities, have either never been used, or are feedstocks in a primary manufacturing operation as opposed to a secondary operation (Annex IV). Sometimes, used materials that have been processed to the point where they are the equivalent of a feedstock in a primary manufacturing operation can be considered to no longer be wastes. Likewise, hazardous waste equipment which is repaired to a fully functional state can be considered non-waste. If all authorities in all States Concerned (importing, exporting or transit) concur that the material can be considered a non-waste, then it may be transported as a non-waste and thus outside of the control procedures of the treaty or law.

Final Determination of Legality for Transboundary Movements must be done by Government Actors

The exports taking place under the Basel Convention or OECD Council Decision and most all other regional agreements discussed here, will require country-to-country notifications and consents. Such notifications and consents cannot be accomplished by private entities, but must involve the communications between governments in the exporting, importing and transit states. Just because an organization believes something to be legal or illegal cannot be a definitive determinant. The applicable governments must agree to legality and in addition consent to the export/import and they must be agreed between Basel Competent Authorities. Beware of assuming that an export/import is legal when an import permit is produced by somebody in another part of government or the private sector. Often times, one part of government does not know the Basel Convention rules, or knowingly seeks to avoid them. Import permits can only be assumed to have relevance in the context of the government-to-government Prior-Informed-Consent (PIC) procedure conducted by Basel Competent Authorities.

NOTE: Please do not hesitate to contact e-Stewards for any further questions you may have regarding international trade in e-wastes.

6.1.3.1 (b)

Control procedures: Prior notification and consent, etc.

6.1.3.2 Extended Producer Responsibility Programs

Possibilities for evidence of compliance include documentation of unique pounds per OEM, audit findings, reports filed with the relevant jurisdiction(s), material balance, etc.

The [NCER site](#) can be helpful in getting initial information on particular state programs in the United States. Non-official summaries of the requirements and additional resources for each state of the United States can be found [here](#). In the European Union, the [EWRN site](#) can be helpful.

Examples of possible EPR program requirements include documentation of:

- Registration with those EPR jurisdictions requiring recyclers to register.
 - Evidence of timely fees paid to states where necessary.
- Registration and maintenance of collection sites/networks where necessary.
- Reporting as required by each jurisdiction
- Covered electronic devices (also sometimes referred to as CEDs or “covered electronic equipment”) – product types legally required to be managed by original equipment manufacturers (OEM).
- Covered entities – the type of person or business in which CEDs are legally required to be collected from. E.g.: households, small businesses, government institutions, etc.

- Reuse eligibility – ability to use CEDs which are sent for reuse towards compliance in a particular jurisdiction.
- Insurance requirements – specific to state/jurisdictional requirements.
- Pounds incentives – specific to state/jurisdictional requirements. E.g. – rural/non-rural (metro/non-metro) and or other incentives which may be identified by the local law.
- Collection Fees – specific state /jurisdictional requirements related to ability to charge for services related to CED collection, transportation, and recycling.
- Unique pounds – show each CED pound is not duplicated or sold to more than one OEM.

6.1.4 Performance Verification

The documented performance verification plan can include NAID’s required unannounced audit plan.

e-Stewards should be notified promptly regarding any regulation or contract that precludes full accommodation of the inspection. The restriction should also be included on the Organization’s compliance obligation list.

See also [What to Expect from an e-Stewards PV Audit.](#)

6.1.4.1 Report to e-Stewards database

The information is to be completed and filed [here](#).

Each processing facility operating during a calendar year should be reported to e-Stewards separately, regardless of whether the organization has been issued individual certificates for each facility or a single multi-site certificate.

6.2 Stewardship Objectives and Planning to Achieve Them

While measurable objectives must be established, qualitative objectives may be established as well. In such cases, progress towards or achievement of these qualitative goals should also be monitored.

6.3 Planning for changes

See 8.3.1 for monitoring requirements regarding changes involving PHPTs

6.4 Contingency Planning

A contingency plan does not have to be a single document, unlike a Closure Plan.

When looking for evidence of contingency planning during downstream audits, also check for keywords such as resiliency, impact analysis, risk management, disaster recovery, etc.

6.4(e)

Temporary closure or disaster recovery: potential causes for such situations include extreme weather, pandemic, security breach, etc.

Consider also challenges covering multiple areas of concern, such as partial destruction of a building that creates conditions unsafe for entry, but leaves equipment potentially exposed to theft or further damage.

6.4.1(a)(2) [Site Closure]

Wastes generated by closure activities: any waste, hazardous and/or non-hazardous, which could incur a liability or cost on closure, including byproducts and residuals, former products, etc.

6.4.1(b)(1)

Waste: any waste, hazardous and non-hazardous, e-waste and non-e-waste, which could incur a liability or cost on closure, including construction materials, equipment, former products, byproducts, residuals, etc.

6.4.2 Establishing financial surety to implement a site closure plan

Options for financial instruments include escrow, insurance, 3rd party bonds, trust funds, letters of credit, etc.

For additional information on the financial instruments listed above, see [Financial Assurance Requirements for Hazardous Waste Treatment, Storage and Disposal Facilities | US EPA](#).

Third parties having custody of financial instruments may include state agencies, CPAs, attorneys, etc. Parent companies are not considered third parties for the purposes of this section.

Commodities are not considered assets.

The \$5,000 exception only applies to establishing financial surety, not the entirety of 6.4

6.4.2 Second Paragraph

Proof of risk management advice could include comparisons with industry averages, etc.

6.4.3 (b) [Insurance]

e-Stewards cannot provide guidance on specific insurance levels, as they can vary dramatically from operation to operation.

7 Support

7.2 Competence

Documented evidence of competence is required by ISO 14001 and RIOS.

7.3 Awareness

Awareness implies that personnel can communicate their understanding of the relevant topic

7.4.1 General [Communication]

Methods for communication: formal training, meeting, press release, email, etc.

See guidance on section 4.1 for examples of interested parties

"...in a manner appropriate and accessible to its intended audience...": i.e., with consideration for language, disability, literacy level, etc.

7.4.3(b) External Communication

This should be interpreted to include *prospective* upstream customers as well, e.g., e-Stewards-certified processors considering the Organization as an IDP candidate. Such communication should be confidential, which can be addressed by requiring a signed NDA.

7.4.3(b)(1)

This is intended to include all MOCs under inquiry, at a minimum, and is best communicated using the Organization's Downstream Disposition Chart (see 8.8.1).

7.5.1 General [Documented Information]

Documented information: see definition in ISO 14001

Individual documents: While these must be individual, titled documents as stated, they may be collected with others. For example, an Organization's Downstream Disposition Chart may be included in an audit packet with other documentation, such as certifications, certificates of insurance, etc. Or, a completed site closure plan may be embedded in a contingency plan as required by certain state authorities.

These three documents are required to be readily available, stand-alone, up-to-date documents.

8.2 Emergency preparedness and response

The Emergency Preparedness and Response Plan should include events identified through the Organization's planning processes (see Section 6). Examples include

- Severe weather
- Toxic spills
- Battery fires
- Building fires
- Earthquakes
- Tsunami
- Power outages
- Active shooter/intruder

Documentation could include incident reports, drill reports, etc.

Relevant emergency drills: Drills deemed applicable to the Organization by Management. Risk assessments & compliance obligations are among the sources for determining which drill(s) may be necessary

Drills should be conducted physically, emulating real emergencies as closely as practicable.

8.3(a)(4) [Industrial Hygiene]

Physical hazards: Slips, trips, falls, issues with walking/working surfaces, etc.

8.3.1(a)(1)

...under the direct supervision of a Certified Industrial Hygienist or Equivalent: This is intended to allow someone other than a CIH/E to conduct the actual tests, but still retain assurance that the tests are done correctly. See also definition 3.3.

8.3.1(a)(4)

The concept of PHPT is independent of any HEW or PCM designations.

Monitoring processes are not limited to testing of worker breathing zones and wipe sampling for surface areas.

Be aware of relevant privacy laws & regulations when providing documented information to auditors or inspectors

8.3.1(b)

We recommend planning for initial IH testing well in advance of 1st audit to allow for unforeseen delays

Both the first and second testing should be full IH tests, not targeted to specific areas

8.3.1(c)(2)

The effectiveness of PPE used for reducing noise exposure should be taken into consideration when determining noise testing intervals.

8.3.1(e)

See 3.8 for definition of Designated Health Provider

Program Review: The DHP is supposed to review all PHPT IH monitoring results as part of the 6.1.1 risk assessments; a medical surveillance program is a different set of requirements established at least in part by both the DHP and relevant CIH/E (see 8.3.1(f)). Also, under certain circumstances, the CIH/E definition allows someone working for the Organization as an IH professional to evaluate test results. The DHP review requirement brings an outside set of eyes to those results.

Possible evidence of DHP review: statement that no action is required, recommendation for action(s), etc.

8.3.1(f)(2) 2nd bullet

Note: these methods/requirements are and/or become compliance obligations

8.4.1 Planning for the management of Electronic Equipment

Documentation could be provided using the Downstream Disposition Chart, the Organization's Inventory Management system, etc.

8.4.2(b) [Processing controls] and

8.4.3(d) [Packaging, storage, and transportation]

Enclosed Weatherproof Building: We are concerned that operations and storage be conducted with protection from wind that can disperse residues and dust, precipitation that can wash such residues onto the ground and runoff into ground or surface waters, and sunlight that can, if hitting lenses etc., cause fires. The minimum example of a weatherproof structure would be durable, waterproof tenting material around a robust frame without any openings to the wind, precipitation, or sunrays during storage or operations.

Impermeable Flooring: As the standard requires weatherproof storage and processing, the flooring concern is primarily related to problems created due to spillage of powders, liquids, or dust from materials derived from the waste or scrap itself. As liquids and powders are the most difficult to manage (as they can flow and penetrate flooring) and as their presence as part of operations and waste itself is relatively rare, the standard's requirement for impermeable flooring may be met through the following two options.

Option 1 – Semi-Permeable Flooring with Assurances against the Presence of Liquids and Powders.

This option may apply if assurances and documentation are in place that stored material or operations will not involve any liquid material (including operational liquids such as machinery motor oils and coolants etc.) or collected powdery material (e.g., CRT phosphor or filter dusts). In this case, flooring can be unbroken smooth cement or concrete flooring, asphalt/tar paving, metal flooring, plastic coated flooring, wood flooring, linoleum, etc. Drainage may be present. Brick or paver floors, gravel, or overlapped boards or plywood do not meet these criteria. This option provides assurance that there will not be liquids or obvious powdery substances present that could more readily leak into the environment, and that if there is leakage, it could be cleaned up.

Option 2 – Impermeable Flooring without Assurances

Under this option, liquids and dust-containing wastes may be stored or used in the area or operation, if the floor is smooth unbroken concrete or cement, unbroken plastic-coated flooring, vinyl/linoleum flooring, or seam-sealed metal flooring, all without drains. Uncoated wood, unsealed seamed metal, asphalt, gravel, paver, brick, or plywood floors do not meet these criteria. This option ensures that liquid or powdery spillage can be mopped up and cleaned without leakage to the environment or reach stormwater or sewers, etc., via drains.

Note 1: In order to meet the standard's requirements, intermodal containers, truck containers, train cars, etc., must be weatherproof (see 8.4.3(d) and above guidance). Also, under normal circumstances, their flooring should be assumed to be permeable due to the stresses of transport and reuse, unless, prior to loading, the absence of openings in the flooring which could allow leakage of powders and liquids to the environment has been verified. In such cases, option 1 above may apply. Any suspicion of floor leakage would preclude such containers being considered impermeable.

Alternatively, uninspected or permeable trucks, containers, train cars, etc. may be used if parked on a surface described by option 2 above to meet the impermeable floor requirement.

Note 2: Regular inspections of parked trailers, etc., containing any wastes are strongly encouraged under any circumstances.

8.4.3(a) [Packaging, storage, and transportation]

Receipt by the Organization: Storage duration is Organization based, not facility based, which disallows switching between facilities to reset the accumulation start date.

Storage time limitations apply only to MOCs. Some plastics are MOCs, some are not.

Extenuating circumstances: for example, the need to accumulate enough material to facilitate proper recovery per United States regulation 40 CFR 273.35.

8.4.3(g)

Fire lanes: The intent is that fire fighters and their equipment (e.g., hoses) have sufficient access to all areas of the storage site. We recommend rows not exceeding 4 adjacent gaylords (16 ft.) between fire lanes (with lanes at least wide enough to accommodate a forklift, though lanes may be longer than 4 gaylords length). Where compliance obligations are more stringent, they take precedence.

8.4.4 Tolling Operations

If data destruction activities are being conducted via Tolling, that process should also be included in the scope of the Organization's NAID certification. This includes cases where an e-Stewards company is using the upstream client's proprietary software.

The concern with respect to tolling operations is that the e-Stewards name and behavioral standard can become tarnished if the customer uses an e-Stewards Recycler and then retains ownership of the EE and proceeds to behave in ways with that same material which are unacceptable in the e-Stewards Standard/Certification. Of particular concern would be a customer that violates the export restraints of the Standard. Thus, while allowing tolling for those operating in good faith, this section calls for vigilance by all e-Stewards Organizations to prevent operations that might be illegal in any jurisdiction.

NOTE: These requirements are intended for business-to-business relationships. Where the Organization's customer is an individual, (e.g., someone seeking to have their own personal equipment repaired and returned), the Organization need not follow the conditions of Section 8.4.4 (b, c, and d). It is however recommended that such a customer be advised of the benefits of e-Stewards data sanitization and ethical disposition for such time as they might wish to discard the device.

8.4.5 Prison Operations

Prison operations are both a known area for potential abuse and an avenue for providing valuable activity and job training for prisoners. The potential areas for abuse are in allowing a subsidy effect, which undermine the private sector recyclers from a competitiveness standpoint, allowing high risk individuals to manage data security operations, and exposure of a disempowered labor force to hazardous materials or emissions. This section aims to address those concerns and at the same time allow job training operations that are safe and ethical.

8.4.5(a)

Private sector Processors: operations using non-incarcerated workers

8.5 Reuse and Refurbishment of Electronic Equipment

This section is not limited to whole equipment. Reuse and Refurbishment of functional parts or components are also encouraged, as long as all relevant requirements are met.

8.5 Note

Examples for this exception include redeployment, accidental shipment to an Organization, RMAs being handled for a customer, legal holds, etc.

8.5.1(b)(2)ii. B [Testing]

Industry best practices: examples of possible supporting evidence include documentation of research, etc.

8.5.1(c)(2)ii

Industry best practices: examples of possible supporting evidence include documentation of research, etc.

8.5.1 Table 3(3)

“Ensure no Customer Data is present...”: Certain things can be deduced from an item’s configuration; for example, if a hard drive is present then there is the potential for Customer Data to be present also.

The deadline for NAID certification of IDPs was extended to July 2023

8.5.2(a)(2) [Identifying Information]

QSCs do not require individual test results to be associated with a specific serial number, but this does not negate the requirement that they must be tested as Fully Functional in order to go for Direct Reuse.

8.5.2(c) NOTE

The general status of “untested” is intended to allow for outsourcing of testing processes, or shipment as scrap for recycling or final disposal. (QSCs do not require individual test results to be associated with a specific serial number, but this does not negate the requirement that they must be tested as Fully Functional in order to go for Direct Reuse.)

Remember that exports must still follow the relevant requirements listed in the standard in addition to any legal/regulatory requirements.

8.5.2.1(d)

The general status of “untested” is intended to allow for outsourcing of testing processes, or shipment as scrap for Recycling or Final Disposal to an IDP.

8.6.1(a) [Materials Recovery & Final Disposition]

Certified Processors that provided e-Stewards with justification of conditionally allowable options prior to February 2, 2022, and therefore may not have a written acknowledgement of receipt, are grandfathered in, as long as they can provide evidence of the justification being sent.

8.6.1(c)

Emissions and releases: subsurface injection (fracking), emission of combustion byproducts, etc.

8.6.1(d)

Examples include

- Leaded CRT glass going into cement construction products where lead can be released when such products are cut with saws by construction workers
- Using mercury-laden wastes such as CCFL lamps in aggregate that would be used to make roads, where the mercury could enter the groundwater
- Incorporating recycled plastics containing brominated flame retardant into food containers or children’s toys

8.6.2 Alternative uses and processes

Additional testing and/or documentation: relevant TCLP results, testing protocols, emissions documentation, etc.

8.7 Control of Transboundary Movement

Operational controls in this section are directly related to the compliance obligations of 6.1.3.1

8.7(a)

Documented evidence: Manufacturer’s material declaration, etc.

8.7(c)

This particular instance is very rare indeed and involves a situation where no country concerned (exporting, importing or transit) is a Basel Party. This might be an export from Haiti to the USA for example.

8.7.1(b) [Transboundary Exemptions for MOCs]

PCM Plastics are those that might have brominated flame retardants or other halogens in them but are not listed on Basel's Annex VIII or II.

8.7.1(c)

Other material containing CRT glass: Mixtures of CRT glass with other materials and minerals intended for use as feedstock. One example would be frit used to make ceramic glazes.

8.7.2 [Used EE for Repair/Refurbishment]

Bear in mind that these shipments in normal circumstances are assumed to be HEW under the Standard and can only proceed in transboundary movement in accordance with the controls (e.g. prohibited or requires prior notification and consent) as noted under 6.1.3.1.).

8.7.3 [Used EE for Direct Reuse]

Bear in mind that in normal circumstances, these shipments are assumed to be non-hazardous e-waste as long as the declarations asserting testing and direct reuse markets are completed and included as required.

8.8 Downstream Accountability

See 3.44 for definition of Significant Change.

Criteria for approval of Intermediaries could include having no criminal/civil convictions or penalties on record, provision of required reporting content at suitable intervals, reasonable pricing, appropriate customer service, etc.

8.8.1 Downstream Disposition Chart

Keeping the Downstream Disposition Chart accurate and up-to-date is extremely important. The chart also serves as an appropriate and convenient means of communicating the flow of MOCs through the Organization's Control and Recycling Chain as required by 7.4.3(b)(1)

As a reminder, the e-Stewards default minimum retention period is five years (see 7.5.3).

We recommend including final disposition facilities for non-MOC residuals in the disposition chart where feasible (e.g., non-hazardous ash from waste-to energy processors).

8.8.1 (b)

Contact information: connection at a DP/Intermediary that will respond to an inquiry, such as an individual or a department

8.8.1(e)

Consider verifying declared type of operation; possible methods include checking the DPs website, scope of certification(s), etc.

8.8.1 NOTE

You can check Critical Nonconformity status [here](#).

8.8.2 Downstream Due Diligence

8.8.2.1 Processing Capability Evaluations

These could be included in the desk audits required by 8.8.2.2, or they could also be done as a precursor to an initial onsite audit (if potential IDPs don't meet these requirements, going to the expense of an onsite audit would be pointless, since they couldn't be approved).

8.8.2.2(a)(6)

We recommend verification of the full Recycling Chain for all DPs, including e-Stewards and R2 certified processors

8.8.2.3 Onsite Audits of Immediate Downstream Providers

Evidence of e-Stewards certification could include a copy of the certificate or a dated screenshot of the e-Stewards website listing

Closure plans & financial surety: Consider using the requirements of 6.4.1 and 6.4.2 as guidelines for assessing IDP closure plans and financial surety.

Bear in mind that IDPs not certified to e-Stewards might not have a formal closure plan, nor evidence of associated financial surety in place, depending on the local regulatory requirements and the size and characteristics of their operation. As their upstream you may have to work with them to create such a document or collection of documents to fulfil this requirement. Also, based on the e-Stewards requirements in 6.4.2, the \$5000 threshold for financial surety could logically be applied in these instances.

For example, smaller businesses that are IDPs doing repair of select equipment with minimal hazardous operations or storage, are likely not to exceed the threshold of USD 5,000 we have established for e-Stewards in 6.4.2, but they should still demonstrate that the potential costs are less than that figure.

If companies are sizable, and operate a PHPT, or have accumulative storage of a significant amount of MOCs, their closure costs may exceed USD 5,000, and the lack of a closure plan with financial surety could be a red flag to an Organization. In such cases the information may be available but called something other than a "Closure Plan". Examples of possible sources include business continuity or disaster recovery plans, EPA or other permit and license filings, insurance applications, methods of generating funds to cover closure, etc.

8.8.2.4 Agreements and Control Systems

8.8.2.4(a)(3)

Alternative control systems: scope of work agreements, memorandums of understanding, buy/sell agreements, restrictions built into inventory management systems

8.8.2.4(a)(5)

See 3.44 for definition of Significant Change

8.8.2.4(b)

Other control system: scope of work agreements, memorandums of understanding, buy/sell agreements, restrictions built into inventory management systems

8.8.2.4(c)

The intent is that all DPs beyond IDPs have the same control system requirements as PCM IDPs.

Also, notification of the immediate upstream DP of any Recycling Chain changes would count as notifying the Organization, since each link has agreed to maintain the information flow.

9 Performance evaluation

9.1.2 Evaluations of compliance

Evaluations could be done similarly to an internal management system audit, or by having a third-party perform the evaluation(s), etc.

9.2 – Internal Audits

Preferably, a third-party independent consultant will be hired to conduct internal audits. Although not ideal, companies may also conduct their own internal audits with internal staff as long as internal auditors don't audit their own work. In cases where this caveat is difficult, it is recommended that someone other than the primary auditor (or the person being audited) review each audit and associated supporting evidence, to ensure nothing is overlooked or left out.

Internal audit findings should be addressed through corrective actions where appropriate.

Please inquire with the e-Stewards Certification Director regarding our internal audit training program.

9.3(b) [Management Review]

This information includes the results of internal audits and evaluations of compliance

10 Improvement

10(a) Improvement

The term “Audits” also refers to evaluations of compliance, facility inspections, H&S assessments, etc.

APPENDIX A – Additional Requirements for e-Stewards Organizations

All appendices are a binding part of the standard.

A.6.1.4.1 Annual Reporting to e-Stewards Database

Each processing facility operated out of in a calendar year should be reported to e-Stewards separately, regardless of whether the organization has been issued individual certificates for each facility or a single multi-site certificate.

A.8.3.1 PHPT Hazard Testing Requirements

* Documented evidence could include a statement from a third-party CIH that testing for a given hazard is unnecessary

A.8.6.1(10)

Rare earths & critical metals: phosphors, etc.

A.8.6.1(12)(b)

Determined to be without hazardous characteristics: based on information from Safety Data Sheets (SDS), etc.

A.8.6.1(17)

International standards: instruments and guidelines of the International Atomic Energy Agency (IAEA), including the Convention on Nuclear Safety, the Codes of Conduct, and the International Safety Standards

A.8.7.2 e-Stewards Shipping Declaration for Repair/Refurbishment

You can find a fillable Word document [here](#). Password:eEMp96ephveMrTKy.

A.8.7.3 e-Stewards Shipping Declaration of Full Functionality

You can find a fillable Word document [here](#). Password:eEMp96ephveMrTKy.

“Mobile batteries shall tested and meet relevant requirements in Section 8.5.2...” should refer to 8.5.1 instead

APPENDIX B – Administrative Rules, Policies, and Procedures

All appendices are a binding part of the standard.

Appendix B (h) Significant Changes

See 3.44 guidance for examples of Significant Changes

APPENDIX C – Requirements for e-Stewards Certification Bodies and Accreditation Bodies

All appendices are a binding part of the standard.

Appendix C(f)

The mobile processing facility certification address should be that of the dispatching facility

Appendix C(g)(2)

This can be simple reporting on NAID certification status (and conformity to 8.9 until July 2023)