The e-Stewards® Standard for Responsible Recycling and Reuse of Electronic Equipment

Draft Version 4.0©

e-Stewards

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e-Stewards Copyright and Control

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e-Stewards® Standard Requirements

1   Scope

The e-Stewards Standard is to be used within the e-Stewards Certification program to govern the management of Electronic Equipment as defined herein when it is managed by e-Stewards Processors involved in its disposal, recycling, or reuse. For more information on the scope of the Certification program itself, see Appendix B.

The e-Stewards Standard requires the international environmental management systems standard ISO 14001: 2015© (ISO). Additionally, as of July 1, 2022, it will require the current version of the international data security standard known as NAID AAA Certification including all NAID endorsements relevant to the organization's business model.

1.1   Appendices
All appendices are a binding part of the Standard.

▶   Appendix A contains additional detailed requirements for implementing select standard requirements.
▶   Appendix B contains administrative rules and procedures for organizations seeking certification.
▶   Appendix C contains administrative rules and procedures for e-Stewards Certification and accreditation bodies.
▶   Appendix D contains the data security requirements usable until July 1, 2022, when the NAID AAA Certification including all NAID endorsements relevant to the organization's business model. Until that date, organizations can use either means (NAID or Appendix D) of meeting the Date Security requirements of the Standard.

1.2   Hierarchy of legal compliance and voluntary conformity with Standard
Where requirements in this Standard conflict with legal requirements, the law will always prevail. However, where this voluntary Standard is not in conflict with laws, the e-Stewards requirements shall be implemented in addition to all applicable law.

1.3   Restricted use of this Standard
This Standard may only be used as part of the e-Stewards accredited Certification program, as licensed by the Basel Action Network. An organization may only claim to meet this Standard or be an e-Stewards Processor if it is currently certified by an accredited e-Stewards Certification Body and is currently licensed to use the e-Stewards name & logo by Basel Action Network. Any other use or various claims of conformity to this Standard or parts of this Standard are strictly prohibited.

2   Normative references
▶   Current certification to ISO 14001© (ISO) is a requirement of this Standard.
▶   Current certification to NAID AAA Certification© (NAID) is a requirement of the Standard as of July 1, 2022. NAID can be used to substitute for the Data Security Requirements found in Appendix D, which will sunset on this date, after which point only NAID will be required.

3   Terms & definitions
For the purposes of this document, the verbal forms found in ISO 14001 section 0.5 and the definitions given in ISO 14001 section 3.0 apply, unless they are superseded by the definitions below.

3.1   Ancillary Sites
Locations or operations owned, leased, or Controlled by the Organization, other than processing facilities, which serve the Organization for managing Electronic Equipment by activities not covered by the term Processing. Ancillary Sites do not include sites owned by an organization's customers or downstream providers.

3.2   Annual
A twelve-consecutive-month period having a recurring start date determined by the organization, with each subsequent twelve-month period beginning on the initially determined date.

3.3   Certified Industrial Hygienist (CIH) or Equivalent
An occupational health and safety professional who:

a) Is currently certified by an industrial or occupational hygiene certification agency that is a recognized certification scheme by International Occupational Hygiene Association (IOHA) or other internationally or nationally accredited organization that certifies occupational or industrial hygiene professionals; or
b) Has spent at least 10 years as a full time (at least 75% of their job duties) Industrial Hygiene professional; or
c) Has a minimum of 5 years of experience, specific to the electronics recycling industry, as a full time (at least 75% of their job duties) Industrial Hygiene professional.

3.4   Commodity
Non-waste material derived from primary resources (mined or extracted from virgin raw materials) or from secondary resources (wastes) that is not destined for Recovery, Recycling, or Final Disposal (Basel Annex IV), but instead will be directed to the following destinations without the need for further Processing, cleaning, or separation:

a) Sold directly into a market as a new consumer product; or
b) Used as a direct feedstock in a manufacturing process to make a product where neither the product nor the production process will release harmful emissions or leachate, or produce hazardous by-products or residues that fail applicable threshold levels (see definition of HEW).

3.5   Competent Authority
For nations that have ratified the Basel Convention, the Basel definition of Competent Authority applies. For the USA, the definition found in OECD Agreement C (2001) 107/FINAL applies. For countries not a party to either of these two instruments, this term refers to the designated government agency responsible for approving Transboundary Movement of hazardous wastes, recyclables, and reusable materials and equipment.

3.6   Control
Activities or services the Organization undertakes or outsources, all or in part, which involve invoicing, selling, donating, brokering, holding, collecting, storing, transporting, processing, or otherwise managing Electronic Equipment, even if the Organization never takes possession of the equipment or materials, and whether or not the services are represented as e-Stewards services. As an exception, in Tolling Operations, Control for the Organization ends after it finishes conducting the contracted service and physically transfers the equipment to the owner.

3.7   Customer Data
Any digital or analog information located in, on, or about any Electronic Equipment derived from any media, including but not limited to digital memory, magnetic memory, floppy drives, hard or flash drives, audio or video recordings, paper, microfiche, photographs, and labels, which:

a) Could identify or allow discovery of individuals or their activities, including information such as Internet Protocol (IP) addresses, email and mail addresses, phone numbers, ID numbers, or passwords; or
b) Could identify or allow discovery of information about a corporation or organization and its activities, except for an asset number or code, the corporate name, its logo, and publicly known information about the corporation or organization; or
c) Consists of licensed software, if the electronic device will not be returned to the licensee; or

d) Consists of financial information of any kind other than the sales price of equipment.

3.8   Designated Health Provider
An occupational health professional that is either a physician or a medical authority operating from a licensed clinic.

3.9   Direct Reuse
Continued use, by someone other than the previous user, of Electronic Equipment that has been tested and determined to be Fully Functional for the originally intended, Repurposed, or upgraded purpose, without need for Repair/Refurbishment.

3.10   Downstream Provider (DP or DSP)
Any facility or operation that Processes, disposes of, or otherwise manages any Materials of Concern and/or Electronic Equipment potentially containing Customer Data that pass through the organization's Control. Downstream Providers do not include Intermediaries.

3.11   e-Stewards Processor
A Processor certified to the e-Stewards Standard. Certifications are only granted once a Processor has passed the requisite audits administered by a Certification Body and has executed a License Agreement with the e-Stewards Administrator.

3.12   Electronic Equipment (EE)
Equipment and/or components from any sources, that are:

a) Dependent on electric currents or electromagnetic fields in order to function including equipment used for the generation, storage, transfer and measurement of such electric currents and fields, and have never contained ozone-depleting substances, combustible fuels, or gases; and
b) Consumables associated with (a) above, such as ink and toner and their cartridges, compact and other discs, batteries, chargers, and adapters.

   This definition includes associated Materials of Concern and Processing residuals in any form.

3.13   Electronic Waste
Electronic Equipment and/or components that are:

a) Intended for Recycling, energy recovery, or Final Disposal, all or in part; or
b) Intended for Repair/Refurbishment, but not Direct Reuse; or
c) Tested and Fully Functional but for which a Direct Reuse market has not been affirmed according to the requirements of this standard; or
d) Deemed waste or banned for importation by any country involved in an applicable Transboundary Movement.

3.14   End Processor
Final Downstream Provider at the end of the Recycling Chain that transforms mixed, waste, or scrap materials into Commodities or feedstocks for production with no further refinement or separation of materials or wastes required after End Processing. End Processors may also produce wastes, such as slag & filter cake, for further Processing or Final Disposal. End Processors include mercury retorts, plastics pelletization or flaking, and glass furnace operations, as well as metals smelters or hydrometallurgical metal recovery.

3.15   Exposure Limit

The applicable regulatory occupational exposure limit for each identified hazard. If none exists, then either the current Threshold Limit Value or Biological Exposure Index established by the American Conference of Governmental Industrial Hygienists (ACGIH), or if that is not applicable, then the exposure limit for that hazard from an OECD country.

3.16   Extended Producer Responsibility (EPR)

A voluntary or legislated waste management policy or program that requires a producer or importer to take financial and sometimes logistical responsibility for the proper and safe management of their products in the post-consumer stage of their life cycle.

3.17   Final Disposal

Operations that do not lead to the possibility of Materials Recovery, Recycling, reclamation, Direct Reuse, or alternative use (see Basel Convention's Annex IV, Part A). Final Disposal includes deposit in landfills and/or incinerators (including incinerators with energy recovery), and safe, monitored, retrievable storage.

3.18   Final Disposition

The last operation in the recycling chain at which electronic equipment:

a) Ceases to be a waste by being Processed into a Commodity; and/or
b) Is prepared for Direct Reuse by completing reuse requirements in this standard; and/or
c) Is Finally Disposed.

3.19   Fully Functional/Full Functionality

Electronic Equipment and/or components that have been tested and demonstrated to be:

a) Capable of performing the Key Functions that it was designed or Repurposed to perform; and
b) Safe for use and handling and without structural problems that could lead to damage, injury, or lack of functionality; and
c) Without any non-functional components containing HEWs, with the exception of non-removable batteries in dual battery equipment (see 8.5.1)

NOTE: Conformity with this definition does not require that cosmetic alterations or software loading be completed prior to export/import.

3.20   Halogenated Materials

Contain compounds with atoms of the halogen group of elements including fluorine, chlorine, bromine, and iodine. In EE, these materials include but are not limited to all plastics, circuit boards & other items that contain fluorinated polymers, brominated flame retardants (BFRs), polyvinyl chloride (PVC), and polychlorinated biphenyls (PCBs).

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

Electronic Waste or residues of Electronic Waste:

a) For which the hazardous characteristics and constituents are not known; and/or
b) That are deemed hazardous waste or banned for importation by any country involved in an applicable Transboundary Movement regardless of the type of destination or condition of equipment at the time of said transboundary movement; and/or
c) That consist of, contain, or are contaminated by:

   1) Asbestos
   2) Batteries

▶ Of any kind containing intentional inputs of lead, mercury, and/or cadmium; and/or
▶ Which are unsorted, or for which the chemistry is unknown; and/or
▶ Containing flammable organic solvents, e.g. lithium-ion batteries; and/or
▶ Containing any other hazardous materials listed in Basel Convention Annex I and possessing an Annex III hazardous characteristic;

3) Cathode ray tubes (CRTs), CRT glass, CRT cullet, CRT fines, phosphors, coatings, and frit from CRT glass, and any materials contaminated with these;
NOTE: The following are exempt from the definition of HEW:

▶ CRT glass that is non-leaded and is thoroughly cleaned of phosphors, coatings, frit, and fines, as determined by a toxics characteristic leaching procedure or equivalent test method; and
▶ The metal band around the CRT front panel, and/or the shadow mask, unless they are contaminated with Phosphors.

4) Polychlorinated biphenyls (PCBs) with levels that exceed actual concentrations >50 mg/kg;
5) Waste materials or components containing radioactive substances emitting radiation, including alpha particles, nucleons, electrons, and gamma rays which are the result of human design or inputs such as some smoke detectors and contaminated devices used in nuclear medicine;
6) Plastics listed on VIII or Annex II of the Basel Convention (e.g. Y48);
7) Any Electronic Equipment (such as circuit boards, lamps, switches, assemblies, housings, plastics, cables, and wires) that contains any of the following substances as intentional inputs, in unknown levels, or in levels exceeding threshold limits indicated below[1] (determined using US EPA's TCLP Method 1311):

▶ Arsenic   5.0 mg/L
▶ Barium   100 mg/L
▶ Beryllium   0.007 mg/L
▶ Cadmium   1.0 mg/L
▶ Chromium   5.0 mg/L
▶ Lead   5.0 mg/L
▶ Mercury   0.2 mg/L
▶ Selenium   1.0 mg/L

NOTE 1: Electronic Equipment entering into the organization's Control is considered HEW until determined otherwise.

NOTE 2: Hazardous Electronic Waste does not refer to non-hazardous fractions such as copper, aluminum, or steel alloys (waste streams listed in the Basel Convention Annex IX) unless that material is contaminated with materials listed in 1) – 7), that exceed threshold test levels noted above.

3.22   Immediate Downstream Provider (IDP)
A next-tier Downstream Provider to which the organization directly transfers MOCs or Electronic Equipment capable of holding data, including any such operation to which the organization outsources activities it is responsible for under this Standard. This does not include Intermediaries.

3.23   Industrial Hygiene (IH)
The anticipation, recognition, evaluation, communication, and control of environmental stressors in, or arising from, the workplace that may result in injury, illness, or impairment, or that may otherwise affect the well-being of workers and/or members of the community.

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[1] These levels are found in the Federal Register of the United States at 40 CFR 266 Appendix VII.

3.24   Intermediary

Any entity within the Recycling Chain which brokers, holds, buys, sells, transfers, stores, manages, or facilitates transactions of any Electronic Equipment (including material derived from it) that passes through the organization's facility or Control but does not perform Processing. Intermediaries may cut cables from devices without being disqualified from this definition. Intermediaries may or may not take physical possession of equipment. The term Intermediary does not include Downstream Providers or transportation companies that solely convey goods from one location to another.

3.25   Key Function(s)

The essential function(s) of a unit of Electronic Equipment that will satisfactorily enable the equipment to be safely used as originally intended, or, if Repurposed, in accordance with its marketed description.

3.26   Life-Cycle Perspective

Taking into consideration the entire life cycle of products and wastes on the environment, human health, social and other aspects, including for example climate impacts, legacy toxics, impacts on consumers, and end-of-life residual impacts.

3.27   Management

Those that make financial, operational, and policy decisions for the Organization, and always include top Management (owners and executives).

3.28   Materials of Concern (MOCs)

Umbrella term for Hazardous Electronic Waste (HEWs) and Problematic Components or Materials (PCMs).

3.29   Materials Recovery

Operations that are part of a process to reclaim elements, compounds, or materials and transform them into Commodities.

3.30   Organization

An eligible processing business (for-profit or non-profit) that either is a candidate for certification to the e-Stewards Standard or is currently an e-Stewards Processor.

3.31   Phosphors

Compounds that produce light when excited (i.e. are struck by free electrons). Phosphors (typically a powdery white coating) coat the inside of faceplates/front panels of cathode ray tubes (CRTs) and are used in some lamps, such as fluorescent lamps utilizing mercury-based phosphors. Phosphors in the current waste stream are likely to contain compounds of cadmium, mercury, rare-earth metals and/or other metals of varying or unknown toxicity.

3.32   Potentially Hazardous Processing Technologies (PHPTs)

Technologies, activities, or operations that process Electronic Equipment and have the potential to release hazardous or Problematic Components or Materials (see Appendix A) into the environment.

3.33   Precautionary Principle

The taking of prudent action(s) to prevent harm to humans or the environment where a strong suspicion exits that a certain activity may cause such, without waiting for conclusive scientific proof of causality.

3.34   Prison Operation

Facilities that Process Electronic Equipment in which work on EE is performed by workers serving a prison sentence.

3.35   Problematic Components or Materials (PCMs)

Electronic wastes that may not be defined as Basel Convention hazardous wastes or e-Stewards Hazardous Electronic Wastes, but which may be hazardous or require special controls or consideration in order to enhance recyclability or address potential environmental or occupational health and safety risks that may arise from Processing such components or materials. These are:

▶ Sorted alkaline and other batteries that contain no lead, mercury, cadmium, lithium, flammable organic solvents, or unknown contents; and/or
▶ Glycol-based coolants; and/or
▶ Inks and toners, including associated cartridges and containers contaminated with their residue; and/or
▶ Plastics with halogenated additives or constituents, such as those containing brominated flame retardants or polyvinyl chloride (PVC) but not those listed on Annex II or VIII of the Basel Convention; and/or
▶ Other components and materials identified by the organization as problematic.

3.36   Processing

The physical alteration, manipulation, or management of Electronic Equipment, leading to Direct Reuse and/or Materials Recovery. It includes, but is not limited to, any Basel Convention Annex IV B operations, including Recycling, treatment, manual disassembly, mechanical size reduction, smelting, Repair, remanufacture, Re-Repurposing, refining, End Processing, and/or harvesting of parts. It also includes software manipulation such as data sanitization and software installation, upgrading, and testing. Final Disposal & energy recovery operations are not Processing.

3.37   Qualified Auditor

An individual with the competence to perform effective downstream provider audits and/or internal audits based on detailed knowledge of relevant requirements, and who is free from conflicts of interest.

3.38   Qualified Smaller Components (QSCs)

The following commonly used low-value Electronic Equipment components or peripherals without data-bearing capabilities and not containing batteries: mice, chargers, power supply units, voltage/plug adapters, keyboards, fans, ink/toner cartridges, integrated circuits, and printed circuit boards including RAM. It does not include printers or monitors. Other items may qualify for this definition if written approval is first provided by the Program Administrator.

3.39   Recycling

Operations that lead to or are part of Materials Recovery.

3.40   Recycling Chain

All entities, activities, and operations that Process, Repair/Refurbish, Recycle, manage, receive, transfer, store, and/or dispose of any Electronic Equipment that passes through the organization's facility or Control. The Recycling Chain includes, but is not limited to, all Ancillary Sites, Downstream Providers, End Processors, Final Disposal facilities, and Intermediaries.

3.41   Repair/Refurbishment

Process or activity that transforms used or unused Electronic Equipment (including components) into Fully Functional Electronic Equipment for Direct Reuse.

3.42   Repurposing

A form of Direct Reuse where the primary function of a piece of Electronic Equipment is different than that originally intended by its manufacturer, such as a phone Repurposed as a digital music player.

3.43   Shipping Records
Verifiable records of incoming and outgoing shipments or transfers of Electronic Equipment (including components and materials derived from equipment), such as shipping logs, invoices, bills of lading/waybills, or other commercially-accepted documentation of transfers, and the corresponding acknowledgments of receipt from receiving facilities.

3.44   Significant Change
Includes, but is not limited to, any change that could materially affect the organization's commitments to customers, compliance with laws, detrimental impacts on human health and the environment, and/or ability to remain in conformity with the e-Stewards Standard.

3.45   Stewardship
Establishment, maintenance, and improvement of aspects supporting the environment, health and safety, data security, and social responsibility.

3.46   Stewardship Management System (SMS)
The Organization's internal system for managing its plans and processes in order to achieve intended results and to foster Stewardship. The SMS is governed by its documented scope (Section 4) and structured around ISO 14001.

3.47   Tolling Operations
A business model wherein an organization conducts a contracted service (e.g. lease returns, repair, sorting, triage) for a customer while the customer maintains ownership and receives all or part of the equipment back following the service.

3.48   Transboundary Movement
Any movement or intended movement of Electronic Waste across a national border from one country to another;

3.49   Unusual Equipment
Electronic Equipment which is not generally handled by the organization and which the organization is not equipped to fully test.

3.50   Waste Management Hierarchy
Management policy for waste, establishing the following order of preference:

a) prevention
b) minimization
c) reuse (including repair)
d) recycling
e) safe, monitored storage for eventual reuse or recycling
f) energy recovery
g) disposal

4   Context of the organization

4.1   Stewardship Management System
The Organization shall create, maintain, implement, and continually improve a Stewardship Management System (SMS), that covers all operations within each country in which the Organization exists. Additionally, the Organization shall determine internal and external issues affecting their SMS, positively and negatively, with consideration for the concerns and requirements of those identified interested parties interacting with the SMS, and for whether these should be considered compliance obligations.

The documented scope of the SMS shall include:

a) The Stewardship requirements of this Standard; and
b) All Electronic Equipment entering the Control of the Organization; and
c) All property and assets under the organization's Control, including Ancillary Sites; and
d) All personnel performing work for the Organization.

Within its scope and taking consideration the concerns and requirements identified above, the SMS shall:

a) Apply the Precautionary Principle; and
b) Seek to reduce the negative lifecycle impacts of Electronic Equipment passing through the Organization's Control; and
c) Follow, where practicable, the Waste Management Hierarchy; and
d) Manage Materials of Concern appropriately and transparently throughout the Recycling Chain.

5   Leadership

5.1   Leadership and commitment
Management shall:

a) Take responsibility for the effectiveness and implementation of the SMS at all organizational levels and functions; and
b) Ensure that goals and targets are appropriate to the Stewardship policy and identified significant aspects; and
c) Promote continual improvement throughout the Organization.

5.2   Stewardship policy
The organization's documented Stewardship policy shall include commitment throughout the Recycling Chain to:

a) Protect the environment, human health and safety, data security, and social responsibility; and
b) Protect workers' rights to a workplace free from harassment and discrimination; and
c) Protect workers' rights to a workplace free from harmful pollutants and hazardous conditions; and
d) Prevent transboundary movement of MOCs in violation of relevant laws, treaties, agreements, and this Standard; and
e) Prohibit the use of forced and child labor; and
f) Restrict the use of Prison Operations in accordance with this Standard; and
g) Restrict the disposal of MOCs in accordance with this Standard.

5.3   Organizational roles, responsibilities, and authority
Management shall:
a) Provide all personnel with the authority and responsibility to identify and report on SMS issues, concerns, and opportunities for improvement, and
b) Establish team(s) that are responsible for driving implementation and improvement of the SMS, including for improving safety and ensuring conformity to this standard.
    1)   Team membership shall include representation from all relevant levels of the Organization
    2)   Safety team membership shall include representation from all levels of the Organization

6   Planning

6.1   Actions to address risks and opportunities
The Organization shall plan and document the actions necessary to address and monitor identified risks and opportunities, including those associated with:

a) Issues, concerns, and requirements determined in section 4, including the scope of the SMS; and
b) Requirements determined in sections 6.1.1 – 6.1.4.

6.1.1   Risk assessment

Initially, and at least every three calendar years, the Organization shall conduct documented risk assessments of all operations under its Control, including Ancillary Sites. These shall include workplace hazard assessments with input from relevant workers for each job or area being evaluated, and address the following topics, if applicable:

a) Environmental impacts;
b) Physical hazards;
c) Chemical hazards, including in areas where hazards may migrate;
d) Biological hazards;
e) Operational risks;
f) Potential for release of Customer Data;
g) Downstream risks associated with Hazardous e-Waste and hazardous waste management and transport;
h) Potential emergencies;
i) Compliance risks;
j) Business risks;
k) Trends or recurring risks;
l) Potentially Hazardous Processing Technologies (PHPTs) used by the Organization to process EE; and
m) Other hazards including hazardous substances that may be present in other products or processes used in operations, and/or in materials not accepted by the Organization but present at their facility(ies).

Risk assessments shall also be conducted as appropriate to any Significant Change in a timely manner.

6.1.2   Stewardship aspects

The Organization shall identify and assess the stewardship aspects and associated impacts of the Organization, as well as prioritize significant aspects for action, taking into consideration:

a) The Life-Cycle Perspective; and
b) The Precautionary Principle; and
c) The Waste Management Hierarchy; and
d) The severity and frequency associated with each aspect; and
e) Existing operational controls and their effectiveness; and
f) Compliance obligations; and
g) Significant Changes to the Organization and its SMS; and
h) Risk assessments and monitoring results; and
i) The concerns of interested parties; and
j) The welfare of the affected environment/ecosystem.

Documented information shall be retained and communicated as appropriate, including criteria and process results.

6.1.3   Compliance obligations

The Organization shall determine, document, and periodically review those legal and other compliance obligations relevant to its operations, whether mandatory or voluntary. The Organization shall retain documented information providing evidence of its compliance with these obligations.

6.1.3.1 International Waste Trade Agreements and National Laws

a) The Organization's compliance obligations shall include a duty to not violate or abet the violation of national laws or multilateral waste trade agreements or treaty obligations of import and transit countries. They shall prevent within their recycling chain, exports to countries where it is illegal to import certain wastes. Further, Organizations shall apply the Basel Convention's Article 4A (Former Decision III/1), as if the nation where the Organization operates has ratified and is bound by this agreement.

b) The scope of the above controls required under this Standard shall include all MOCs and, on a case-by-case basis, any wastes deemed hazardous by the exporting, importing, or transit countries.

6.1.3.2 Extended Producer Responsibility Programs

If the Organization participates in any Extended Producer Responsibility (EPR) program(s), documented information demonstrating conformity with all program requirements shall be retained and made available to appropriate interested parties (e.g. OEMs, auditors, governments) upon request.

6.1.4   Performance Verification

The Organization shall create a documented plan for receiving unannounced inspections from designated e-Stewards Performance Verification Program inspectors, including:

a) Management commitment to cooperate with inspectors in all regards; and

b) Assignment of primary and back-up contacts. If neither assigned official is available on the day of the inspection, then the senior site manager shall be the contact; and

c) Confirmation that the Organization will permit inspection to begin within 15 minutes of inspector arrival and verification of their credentials as an e-Stewards inspector; and

d) Permission for the inspectors to access all areas and structures under the scope of the SMS; and

e) Acknowledgment and acceptance that there may be disruptions in production during inspection; and

f) Acknowledgment that in-process and finished materials may be sampled and that any operations or materials may be required to be unloaded, unpacked, inspected, re-tested, or otherwise verified to meet the e-Stewards Standard and management system requirements in all regards; and

g) Provision of documented information to inspectors upon request during the inspection.

6.1.4.1 Report to e-Stewards database

The Organization shall submit data in English to the e-Stewards website regarding all Electronic Equipment moving through its Control. (See Appendix A 6.1.4.1)

The initial report, prior to certification, shall document the period from when the Organization first contracted for certification to when they passed their Stage One audit (minimum three consecutive months). Subsequently, data shall be provided by January 31 of each year documenting the previous calendar year.

6.2   Stewardship objectives and planning to achieve them

Consistent with its Stewardship policy, the Organization shall establish measurable objectives with consideration for the determinations and assessments associated with 6.1, and develop and implement action plans accordingly. These objectives shall be reviewed each year to ensure ongoing suitability.

6.3   Planning for changes

When making Significant Changes to the SMS, the Organization shall plan and carry out the actions necessary to manage implementation requirements effectively, with consideration for appropriate training, communication, monitoring, and documentation.

6.4   Contingency Planning

The Organization shall retain up-to-date documented information as evidence of contingency planning, including:

a) Name of financial instrument required in 6.4.2, and names and current contact information for third party company holding financial instrument; and
b) Any assets to be used as collateral to secure a financial instrument as required in 6.4.2.; and
c) Names & current contact information for third parties authorized to access the funds in the financial instrument; and
d) Any additional information needed by authorities with jurisdiction to enable access to funds and implement a site closure plan; and
e) Any additional information required to manage business continuity during temporary closure or disaster recovery efforts.

6.4.1   Planning for site closure

The Organization shall create, document, and maintain site closure plan(s) to manage the Organization's compliance and conformance obligations in the event of sale, movement to a new location, closure, abandonment, bankruptcy, or any form of dissolution of the Organization. Each plan shall consist of, at a minimum:

a) A description of the relevant site and inventory, including:

1) Site description, current plot plan (facility and property), and all Ancillary Sites; and
2) Estimates of the maximum amount, by weight or count, of Electronic Equipment that could be held on-site at any one time (based on the site's active life), including an estimate of wastes generated from closure activities themselves.

b) A schedule of closure activities and costs, including:

1) Removal, transportation, Materials Recovery, and Final Disposition of all Electronic Equipment (including tested Fully Functional EE), MOCs, and waste, including those in Ancillary Sites; and
2) Industrial Hygiene monitoring during closure activities, if PHPTs were used at any time; and
3) Cleaning in and outside of the facility(s) and any Ancillary Sites; and
4) Remediation & decontamination procedures & activities, if PHPTs were used at any time; and
5) Closure cost estimates, including a breakdown for:

▶ Final Disposition of each type of Electronic Equipment; and
▶ Clean-up, including cleaning, remediation, and decontamination activities; and
▶ Industrial Hygiene monitoring; and
▶ Closure certification, if required by law.

c) A plan for qualified third-party testing, analysis, and remediation upon closure of all facilities and sites where the Organization has ever utilized PHPTs, and/or stored or managed Electronic Equipment outside of sheltered and impermeably floored buildings. This requirement includes, but is not limited to:

1) Indoor wipe (dust) sampling of areas and items which may have been contaminated by heavy metals, including lead, cadmium, and mercury, using sampling and analysis methodologies that provide results representative of facility and site contamination; and
2) Dust sampling for polycyclic aromatic hydrocarbons that may result from thermally treated or exposed EE if any thermal operations were utilized in the site (except hand-held soldering) or fires occurred; and
3) Remediation of any contamination above applicable regulatory limits.

6.4.2   Establishing financial surety to implement a site closure plan

The Organization shall establish a financial instrument(s) sufficient to cover costs for the execution and completion of site cleanup and closure according to the site closure plan, even in the case of abandonment by or dissolution of the

Organization, including Final Disposition of Electronic Equipment and residuals that are in and outside the facility, Ancillary Sites, and in transit. The financial instrument(s) shall be held in the custody of a third party or corporate parent that will provide access to funds in the case of abandonment by or dissolution of the Organization, or in a financial tool specified by law. All assets (e.g. equipment, buildings) wholly owned by the Organization and used as collateral to secure a financial instrument shall be legally designated for the intended site closure, even in the event of bankruptcy.

No financial instrument is needed if site cleanup and closure costs amount to less than USD 5,000. To be eligible for this exception, the Organization must provide sufficient evidence to show that costs would be less than USD 5,000.

6.4.3   Insurance

The Organization shall obtain and maintain liability insurance, or its equivalent in countries that do not allow insurance, adequate to cover the potential risks and liabilities for its physical site(s) and operations, per occurrence and in the aggregate, including:

a) Levels of insurance that:
1) Are commensurate with the nature and risks of the Organization's operations; and
2) Cover liability for data privacy breaches, contractual liability, site pollution, property damage, environmental pollution, legal liabilities, occupational health and safety impacts, and other emergencies and liabilities; and
3) Indemnify affected parties as appropriate, if indemnification is offered and allowed by law;

b) Documented professional risk management advice and quotes regarding appropriate insurance for both its physical site(s) and operations, provided by one or more qualified insurance professionals/underwriters as part of each policy renewal; and
c) In cases where the actual insurance coverage is significantly different from the professional advice and quote(s), the Organization shall provide written justification for the discrepancy.

7   Support

7.1   Resources

The Organization shall identify and make available the resources necessary for the proper implementation of the Stewardship Management System.

7.2   Competence

The Organization shall ensure the necessary competency of personnel, including training on its Stewardship Management System (SMS) for all workers as relevant to their roles, as well as orientation for new employees and those who change roles or departments.

7.3   Awareness

The Organization shall ensure that personnel are aware of:

a) The purpose and importance of the e-Stewards Certification; and
b) The purpose and importance of the SMS; and
c) Their role in the implementation of the SMS; and
d) The value and importance of individual accountability within the SMS; and
e) Compliance obligations relevant to their roles.

7.4 Communication

7.4.1 General

The Organization shall determine topics and methods for communication with interested parties, both internal and external, and ensure that the information communicated is reliable, current, <mark>presented in a manner appropriate and accessible to its intended audience</mark>, and consistent with that produced by the SMS.

7.4.2 Internal communication

Internal communication shall include the following at appropriate intervals and at all relevant levels:

a) Goals and objectives established by the organization, the SMS, and progress towards achieving them; and
b) Operational controls, including health and safety initiatives; and
c) Changes associated with work being performed; and
d) Results of Industrial Hygiene monitoring.

The organization shall ensure communication between workers and management without fear of reprisal.

7.4.3 External communication

Communication with contractors and visitors to the organization's facilities shall include, as appropriate:

a) Relevant operational controls, including EH&S requirements; and
b) Emergency response procedures that may apply; and
c) Facility and data security requirements associated with their presence.

Confidential communication with upstream customers and the e-Stewards Administrator shall include, upon request, the following information:

a) MOCs moving through the organization's Control and throughout the Recycling Chain, including relevant site and contact information -- Downstream Flow Chart; and
b) Shipping Records for each transfer to an IDP; and
c) Three months sampling of shipping records to each DSP beyond IDP; and
d) Equipment and components going for reuse; and
e) Competent Authority consents, where applicable.

NOTE: If requested, the provision of more extensive documentation may be contractually negotiated and controlled.

7.5 Documented information

7.5.1 General

<mark>Where</mark> requirements in this Standard call for documented information, the Organization may create separate or combined documentation as deemed appropriate, <mark>except for the following, which shall be 'stand-alone' documents to assure ease of access for users</mark>:

a) Closure Plan(s); and
b) Emergency Preparedness and Response Plan; and
c) Downstream Disposition Chart.

7.5.2 Creating and updating

<mark>When creating and updating documented information, the organization shall provide accurate documentation of changes and current revision status, where applicable.</mark>

7.5.3   Control of documented information

The organization shall retain all records required by this standard for a minimum of 5 years, with the exception of workplace and worker exposure records, which shall be retained for the length of each worker's employment plus 30 years.

8   Operation

8.1   Operational planning and control

The Organization shall effectively implement SMS requirements, including actions and controls identified in Section 6.

Where applicable, the following hierarchy of pollution/hazard controls shall be utilized:

a) Elimination
b) Substitution
c) Engineering
d) Administrative
e) Personal protective equipment

8.2   Emergency preparedness and response

The Organization shall create, document, and keep up to date an Emergency Preparedness and Response Plan, including the process(es) necessary to prevent, respond to, and mitigate the results of potential and actual emergencies, with consideration for the risks and obligations identified in Section 6, as well as for appropriate training, documentation, and communication.

The Organization shall conduct all relevant emergency drills on an appropriate and regular basis, at least Annually.

8.3   Industrial Hygiene Program

With consideration for the risks and obligations identified in section 6, the Organization shall establish, document, implement, maintain, and, where possible, continually improve Industrial Hygiene controls in order to reduce or eliminate workplace hazards, including injury, illness, and exposure to hazardous materials. Following the Precautionary Principle, this program shall effectively address:

a) Operational risks and hazards, including as applicable:

   1) Airborne hazards;
   2) Ergonomic hazards;
   3) Noise hazards;
   4) Physical hazards in the work environment.

b) Prevention of hazard migration outside operational areas.

8.3.1   Potentially Hazardous Processing Technologies (PHPTs)

If the Organization uses one or more PHPTs, they shall expand their Industrial Hygiene program to include the following:

a) Testing & Monitoring Protocols
     In addition to the requirements listed in b) through f), the Organization shall ensure that:
     1) All IH testing is conducted under the direct supervision of a Certified Industrial Hygienist or Equivalent; and
     2) All laboratory analyses are performed by an ISO 17025 accredited laboratory or a nationally accredited laboratory; and

3) Noise monitoring is conducted in all areas where workers may be exposed to excessive noise, including the operation of balers and shredders. Noise monitoring technology that measures impact, continuous, and intermittent noise shall be used in order to ensure the risk assessment accurately measures the workers' ongoing workday exposures; and

4) Monitoring is conducted for any applicable hazards specified in A.8.3.1 that may affect both the operators of PHPTs and those working where hazards are likely to migrate, including testing of worker breathing zones and wipe sampling for surface areas.

The Organization shall maintain and retain documented information, as applicable, regarding all testing and monitoring protocols, as well as any related activities.

b) Initial IH monitoring
Conduct IH testing once in the year prior to the initial e-Stewards Stage 1 audit and again one year subsequent to the Stage 2 audit in all areas:

▶ Where PHPTs are located and in use, during active operation; and
▶ Identified as problematic in the risk assessment; and
▶ Where hazards could be present, likely to develop or migrate.

c) Additional Ongoing IH Monitoring
1) The Organization shall retest as soon as possible and no more than three months following any mitigation activities, Significant Changes, and/or substantive additions or operational changes in the use of PHPTs or other risk areas.
2) The Organization shall monitor applicable noise hazards and those hazards specified in A.8.3.1 in accordance with testing frequency requirements in **Table 1**.

Table 1: Hazard Testing Frequencies
Based on Exposure Limits specified by the Organization's compliance obligations (6.1.3)

A. When a hazard test result is consistently below 80% of the most stringent applicable regulatory limit or below the action limit ➔	Test every 3 years for that hazard, and when materials or processes change ➔	If any single 3-year test result is: ▶ <50% of the limit, retest every 3 years ▶ 50%-99% of the limit, retest according to row B below ▶ ≥100% of the limit, retest according to row C below
B. When any single hazard test result is between 50% and 99% of the most stringent applicable regulatory limit or below the action limit ➔	Test at each occupationally exposed task twice at 6-month intervals ➔	If any single result is: ▶ <50%, retest Annually for 2 years, then retest according to this table ▶ 50%-99%, remediate and continue 6-month testing cycle until results are <50% ▶ ≥100%, retest according to row C below

C. When any single hazard test result is ≥100% of the most stringent applicable regulatory limit	➔	Test at 2-month intervals until 2 consecutive months are <100%	➔	Retest according to row B

d) Evaluation of and Response to Test Results
The Organization shall ensure a Certified Industrial Hygienist or Equivalent and/or a physician knowledgeable in occupational medicine and/or medical toxicology evaluates the monitoring results, including calculating time-weighted averages, by comparing the test results to the most protective Exposure Limits. Appropriate action shall be taken as recommended by the CIH or Equivalent or physician based on the test results.

e) Program Review by Designated Health Provider
The Organization shall retain a Designated Health Provider to review the results of risk evaluation(s) and ongoing Industrial Hygiene monitoring as part of each PHPT risk assessment required by 6.1.1, and take all appropriate actions recommended by the DHP.

f) Determination of Medical Surveillance Needs, and Implementation of Biological Monitoring if Required
The Organization shall:

1) Implement biological monitoring if any of the following occur:

   ▶ Recommendation from the Designated Health Provider;
   ▶ Indication that Exposure Limits have been reached or exceeded based on relevant Industrial Hygiene test results;
   ▶ Recommendation from the Certified Industrial Hygienist or Equivalent; or
   ▶ Request from the SMS team(s) and/or any worker concerned about their potential exposures if supported by the Designated Health Provider;

2) Develop, document, and implement a medical surveillance program, if determined to be necessary, in consultation with the Certified Industrial Hygienist or Equivalent. The Designated Health Provider shall decide upon the medical issues, but these decisions may be carried out by an occupational health nurse or physician's assistant. This medical surveillance program shall:

   ▶ Be conducted for all workers whose representative Industrial Hygiene exposure data indicates the occupational Exposure Limits have been exceeded;
   ▶ Be based on generally accepted methods and regulatory requirements;
   ▶ Provide the Designated Health Provider with written documentation of pertinent activities performed, work practices, materials handled, exposure controls, personal protective equipment used, monitoring results, and any previous test results for workers employed by the Organization;
   ▶ Specify the frequency of biological testing, medical exams, and conditions where workers are removed or returned to work;
   ▶ Include worker baseline examinations and specify when follow up medical evaluations are required;
   ▶ Be provided without cost to affected or potentially affected workers, and in cooperation with affected workers; and
   ▶ Make a second medical opinion available to affected or potentially affected workers regarding occupational exposures, injuries, or illness, without cost and in a timely manner;

3) <mark>Require</mark> in writing that the Designated Health Provider maintains the confidentiality of all workers' non-work-related medical issues by only revealing to the Organization information specifically related to the workers' workplace exposures/hazards.

8.4 Responsible management of Electronic Equipment

8.4.1 Planning for the management of Electronic Equipment

When planning for the management of Electronic Equipment, the Organization shall:

a) Identify Electronic Equipment accepted by the Organization;
b) Determine method(s) for managing EE not accepted by the Organization, if received;
c) Define the beginning and end of the Organization's chain of custody;
d) Identify the following associated with each type of Electronic Equipment managed:

   1) Hazardous substances;
   2) Applicable subcategory:

      i. Hazardous Electronic Waste (HEW);
      ii. Problematic Components and Materials (PCM);
      iii. Non-hazardous e-waste;

e) Prioritize desired outputs according to the Waste Management Hierarchy and with consideration for the Life-Cycle Perspective.

Documented information providing evidence of these determinations and their implementation shall be retained.

8.4.2 Processing controls and restrictions

Establish operational controls for Processing Electronic Equipment including MOCs as follows:

a) Process only on impermeable flooring and in an enclosed weatherproof building; and
b) Safely remove, separate, and prevent mechanical Processing (de-pollution) of items listed in Table 2, unless using a closed-system Processing technology specifically designed to effectively control any potentially hazardous releases and/or exposure.

Table 2: Items restricted from mechanical Processing (de-pollution)

▶ Asbestos-containing EE, e.g. in some knob & tube wire insulation, heating appliances
▶ Beryllium-containing components, including magnetrons in microwave ovens & other equipment, if they contain beryllium oxide ceramic insulators
▶ Cathode ray tubes (CRTs), including phosphors & other leaded display glass
▶ Glycol-based coolants, e.g. in old rear-projection CRT display devices
▶ Lithium button, lithium-ion, and lead-acid batteries, and batteries that have a potential for explosion
▶ Mercury-containing components, including mercury lamps, older LCD screens, switches, some batteries
▶ Polychlorinated biphenyl (PCB)-containing components
▶ Printer and copier drums and other components containing selenium and/or arsenic
▶ Radioactive devices or materials, such as some smoke detectors and nuclear medicine devices
▶ Inks and toners, including associated cartridges and containers contaminated with their residue

> ▶ Any additional materials deemed hazardous, explosive, corrosive, or otherwise problematic for mechanical Processing by the Organization or applicable regulations

8.4.3 Packaging, storage, and transportation

Consistent with the risks and obligations identified in Section 6, the Organization shall ensure EE under its Control is properly contained, stored, and transported, including:

- ▶ Accurate labeling, including clear warnings as appropriate on MOCs; and
- ▶ Packaging appropriate to protect from damage and/or any relevant potential hazards; and
- ▶ Weatherproof indoor storage with impermeable flooring; and
- ▶ Use of authorized carriers with appropriate security measures, adequate insurance, and acceptable vehicle and driver safety records; and
- ▶ Minimization of ink/toner dispersal and breakage of their cartridges or containers until they reach the point of qualified remanufacture or Final Disposal; and
- ▶ Stacking of EE no more than 2 gaylords/super sacks high to avoid collapse, and provision of fire lanes through, and access to, all gaylords and super sacks; and
- ▶ Separation of batteries that have the potential for unintentional discharges in ways that will not permit such discharge during handling, storage, and transportation.

8.4.4 Tolling Operations

Tolling Operations are permitted if the Organization asserts under its contract and abides by the following conditions:

a) The Organization shall apply the e-Stewards Standard in full to its services while the tolled equipment is in its facility and to any fractions that will remain in the Control of the Organization; and

b) The tolling customer shall be informed, prior to commencing services, of the export requirements placed on e-Stewards Processors and the export/import requirements found in the relevant laws, including those of potential importing countries; and

c) If the Organization learns that their tolling customer has willfully violated or permitted their downstream vendors to violate the laws of any countries regarding export/import of waste, they shall annul all present and future contracts immediately with the offending customer. Later reinstatement of such a customer shall be approved by the e-Stewards Administrator following a review of the matter.

Documented information demonstrating conformity with these requirements shall be retained.

8.4.5 Prison Operations

Prison operations are not permitted by this Standard unless the e-Stewards Program Administrator agrees in writing that all the following criteria are met:

a) The operation does not receive any form of government subsidy which creates a situation where private sector Processors in the same area are less competitive; and

b) The prisoners are not permitted to manage equipment still containing Customer Data, and after July 1, 2022, the operation is fully in conformity with NAID AAA Certification; and

c) Occupational health and safety protections required by this Standard and relevant law are maintained.

8.5 Reuse and Refurbishment of Electronic Equipment

The Organization shall retain responsibility for conformity with the requirements of this section whether or not the associated processes are outsourced.

The Organization shall also:

<mark>a) Prohibit the sale, transfer, or donation of unsanitized EE for Repair, Refurbishment, or Reuse, except to NAID AAA Certified Immediate Downstream Providers; and</mark>

<mark>b) Outsource Repair and Refurbishment processes only to Immediate Downstream Providers, with the exception of ink and toner cartridge remanufacturing, which may be conducted by the next Processor in the Recycling Chain after the Organization's IDP; and</mark>

<mark>c) Ensure that all EE sold, transferred, or donated for Direct Reuse is tested and found to be Fully Functional, except shipments to Immediate Downstream Providers handling outsourced Repair/Refurbishment processes.</mark>

8.5.1   Test Electronic Equipment and ensure Full Functionality & data sanitization

The Organization shall determine the condition of the Electronic Equipment, including components (except as defined in Table 3 below), and conduct Repairing/Refurbishing as needed to prepare it for Direct Reuse markets or destinations. In addition, the Organization shall:

a) Determine that photovoltaic modules destined for reuse are capable of producing power output that is at least 50% of original output; and

b) Determine and document the state of health of each rechargeable battery from mobile computing devices (e.g. laptop computers), (whether in the device they power or separate), as follows:

  1) Inspect each device for evidence of battery issues, including bulging or damage, only permitting non-bulging or otherwise undamaged batteries to go to reuse; and

  2) Fully charge each battery and test to determine its health in terms of both load and capacity as follows:

  ▶ Where feasible:
    i. Determine and record the original design capacity in milliamp-hours (mAh) that is recorded on the smart chip for each battery; and
    ii. Determine and record the last known full capacity (i.e. the reported capacity of the battery at the time of the test) in mAh of each battery; and
    iii. Express & record the difference between the two numbers as a percentage of original capacity; and
    iv. Any battery that is unable to demonstrate its last known full capacity is at least 60 % of the original capacity shall be deemed to be a failing battery and not be made available for reuse; and
    v. Conduct a 10-minute load test using the Prime95 program at the -t setting option, or an equal or greater load.
    NOTE: This Prime95 program and its specifications are available at www.mersenne.org; Version v28.5 or later shall be used, with the -t setting. Batteries that run out of power during the 10-minute load test shall be deemed to be failing and not be made available for reuse.

  ▶ When a battery's state of health or percentage of original capacity cannot be determined as required above:
    i. <mark>Utilize OEM-provided</mark> or third-party <mark>validated</mark> software to conduct a pass-fail battery test, only permitting batteries that pass with a 'good' rating to be sent into the reuse market; or
    ii. Establish documented methodology and criteria for determining battery health, based on industry best practices and the 60% of original capacity benchmark; permit only tested batteries that meet these criteria into the reuse market.

  NOTE: In equipment designed to include both removable and non-removable batteries, non-removable batteries that do not pass testing may remain in place if Full Functionality can be achieved using the removable batteries. The existence of a non-removable, non-functioning battery shall be disclosed to the buyer/end-user.

c) Determine and document the state of health of each mobile phone or tablet battery destined for reuse (unless device is Repurposed to a use that does not require a battery) as follows:

► Where feasible, ensure that each battery is capable of holding a charge of at least 80% of its original rated capacity by:
   i. Recharging the battery (at least 30% recharged) and then perform a "quick test" (e.g. with a quick analyzer set to a minimum threshold of 80% of original capacity), if a reliable quick test is available; or
   ii. Fully charging and discharging the battery to measure its current capacity in relation to original rated capacity.

► When a battery's state of health or percentage of original capacity cannot be determined as required above:
   i. Utilize OEM-provided or third-party validated software to conduct a pass-fail test, only permitting batteries that pass testing to be sent into the reuse market; or
   ii. Establish documented methodology and criteria for determining battery health, based on industry best practices; permit only tested batteries that meet these criteria into the reuse market.

Table 3: Items exempted from Full Functionality testing

Type of Electronic Equipment exempt from Full Functionality requirements	Requirements for this type of Electronic Equipment prior to going for reuse
1) New equipment or components in original unopened packaging	► Determine that the devices are not known or suspected to be defective or subject to recall; and ► Demonstrate the Organization has clear title and authority to sell such products.
2) New components or parts in original packaging which has been opened to remove some but not all the new components	► Determine that the devices are not known or suspected to be defective or subject to recall; and ► Demonstrate the Organization has clear title and authority to sell such products; and ► Confirm that components are new, despite open packaging.

3) Used Unusual Equipment, capped Annually by the lesser of:
► 5% of the Organization's combined total Annual sales & donation value
► 1% of the Organization's combined total units sold & donated Annually
	► Ensure no Customer Data is present, unless shipping directly to a NAID-certified IDP; and
	► Perform a thorough physical inspection to verify the equipment is not damaged and appears to be in good working order or is repairable; and
	► Ensure the equipment is only exported in conformity with this Standard; and
	► Provide notification that each item is:
	  • Not tested for functionality; and
	  • Inspected for physical condition, including disclosure of results; and
	  • Intended for Reuse or Repair/Refurbishment, not for Recycling or disposal; and
	  • Warranted for at least 90% of value;
	► Retain the following records:
	  • Unit quantity and total value of EE sold under this exemption; and
	  • Number or weight of units and/or parts returned.

8.5.2   Record identifying information for each item of Electronic Equipment

The Organization shall retain identifying information for each item of Electronic Equipment (including components) destined for reuse. Identifying information shall include:

a) Information for each device and separate component, as follows:

1) Type of device or component; and
2) A unique identification number for each whole device and component sold or donated separately if the item has a manufacturer's identification number. Qualified Smaller Components are exempted from this requirement; and
3) Year of production (if available); and
4) Model number (if available); and
5) Manufacturer or brand name;

b) Type of testing and, if applicable, data sanitization performed on each device or separate component;
c) Results of tests performed, including:

1) An accurate representation of the condition of the device or component (including cosmetic condition and battery status); and
2) A description of missing components (if applicable); and
3) Confirmation that all equipment & components are Fully Functional (except for EE exempted in Table 3 above); and
4) A clear representation that the item is a used device or component or is new/unused

NOTE: QSCs require only general test status, such as untested, Fully Functional, missing components, etc.

d) Name, address (including country), and current contact information of the Organization responsible for evidence and confirmation of Full Functionality (i.e. Immediate Downstream Provider, if applicable, or the Organization); and
e) Product return policy.

8.5.2.1 Shipping documentation

The following identifying information, at a minimum, shall be conveyed for items in each lot or shipment sold or transferred in a manner that is accessible to officials and customers without the need for unpacking. Transboundary shipments shall make use of the Declarations in Appendix A.8.7 or equivalent:

a) Quantity and make of each type of device or component; and
b) Model number (if available); and
c) Year of production (if available); and
d) General test status (untested, Fully Functional, etc.); and
e) Name, address (including country), and current contact information of the Organization responsible for evidence and confirmation of Full Functionality (the Organization or IDP performing testing); and
f) Product return policy.

NOTE: Lots or shipments of Qualified Smaller Components may substitute weight for quantity.

Access to full identifying information for each shipment of equipment other than Qualified Smaller Components shall be made available using an obvious means to access this information such as an itemized packing list or an active internet link to the information.

8.5.3   Verify Direct Reuse markets

The Organization shall retain documentation that each sale or donation of Electronic Equipment (including components) is destined for Direct Reuse and not for Processing or Final Disposal. Buyer/receiver information is not required if evidence is retained that all equipment and/or components on the relevant shipment are tested as Fully Functional and are sold for at least 3x the relevant scrap rate at the time of sale.

8.6   Restrictions on Materials Recovery and Final Disposition

8.6.1   Restrictions on Materials Recovery and Final Disposition of MOCs

The Organization shall restrict Materials Recovery and Final Disposition of MOCs in its operations, under its Control, and in downstream operations throughout the Recycling Chain to facilities that:

a) Ensure MOCs are managed according to requirements in the table in Appendix A.8.6.1;

   Prior to using a conditionally allowable option, the Organization shall provide the e-Stewards Program Administrator, their Certification Body program manager and, as appropriate, the Certification Body auditor(s) written justification of their decision to use this option. This documentation shall include evidence that all 'preferred' options are not viable due to one or more of the following:

   1) The MOC is not accepted by any facility considered a 'preferred' option;
   2) Legal or logistical barriers in transporting or exporting materials to all available 'preferred' options are insurmountable;
   3) The total costs of using the least costly 'preferred' option are more than twice the cost of using a 'conditionally allowable' option; and/or
   4) No available facility in the 'preferred' option category satisfies the downstream accountability requirements (Appendix A);
   5) When considered from a life-cycle perspective a convincing case can be made that the preferred option(s) is more damaging to the environment than the conditionally allowable option.

b) Are licensed and permitted, as required by applicable jurisdictions, to receive and Process, utilize, or dispose of the specific materials received; and
c) Prevent contamination of air, land, and water, including emissions and releases of hazardous chemicals, elements, and compounds in any form; and
d) Use techniques and processes/applications designed to safely recover and reuse maximum materials, and responsibly dispose of non-recyclable fractions, without placing toxics into new products if releases are likely to occur.

8.6.2   Alternative uses and processes

Prior to sending MOCs into a Process other than those listed in A.8.6.1, written approval shall be obtained from the e-Stewards Program Administrator and applicable downstream due diligence shall be completed.

As part of the approval request, the Organization shall include any projected effects on relevant interested parties, potential life cycle risks and impacts, and associated compliance obligations, as well as demonstrate that the proposed alternative use or process meets all other applicable requirements of this standard, including those for Industrial Hygiene and downstream due diligence. The e-Stewards Program Administrator may require additional testing and/or documentation prior to approval, or after approval if additional concerns arise. Documented information supporting the approval request shall be retained by the Organization.

The Organization may request written authorization for initial research and testing in order to explore the feasibility of an alternative use or process concurrent with their Certification for a limited time. The Organization is responsible for protecting the environment and human health & safety during this test period if so authorized.

The Organization shall document its decision to pursue the alternative use/process once all requirements in this section are met and approval is received from the e-Stewards Program Administrator.

8.7 Control of Transboundary Movement

The Organization shall manage all whole EE that has not been disassembled or shredded as HEW, unless there is documented evidence to the contrary accompanying the relevant shipment.

The Organization shall ensure each transboundary shipment throughout the Recycling Chain meets all applicable requirements of this standard, including the compliance obligations identified in 6.1.3(a).

Where no countries involved are party to the Basel Convention or any other relevant multilateral agreements identified in 6.1.3(a), the Organization shall obtain copies of written notification and consent between relevant Competent Authorities prior to Transboundary Movement of MOCs.

8.7.1 Exemptions from Transboundary Movement Controls

New parts and new devices purchased under repair, replacement, or money-back warranty are exempt from the requirements of this section if they:

a) Have been discovered to be defective upon initial use by the original purchaser; and
b) Are being returned directly to the manufacturer for failure analysis and/or repair or remanufacturing in order to exercise the warranty.

8.7.2 Transboundary movement of certain MOCs allowed under certain conditions

The Organization shall meet the following requirements prior to the Transboundary Movement of:

a) PCM Plastics
  ▶ Obtain and retain objective evidence of conformity to requirements for Materials Recovery and Final Disposition (see 8.6).

b) Cathode Ray Tube (CRT) cullet:
  ▶ Thoroughly clean cullet of phosphors, coatings, and other dispersible particulates & foreign objects; and
  ▶ Obtain and retain objective evidence that the competent authority of the importing country considers such cullet as a commodity (non-waste) as it will be used as a direct feedstock in manufacturing a new product without further Processing or preparation, other than quality control screening.

8.7.3 Transboundary movement of Used Electronic Equipment for Repair/Refurbishment

When exporting any EE (including components) to Immediate Downstream Providers for Repair/Refurbishment, the Organization shall ensure that each shipment is accompanied by a completed and signed label/declaration that meets the requirements of 8.5.2.1.

8.7.4 Transboundary movement of used Electronic Equipment for Direct Reuse

The Organization shall ensure that each shipment of used EE exported for Direct Reuse from their facility or under their Control:

a) Is Fully Functional; and
b) Has an established market and will be directly reused and not recycled or disposed; and
c) Is accompanied by a completed and signed label/declaration that meets the requirements of 8.5.2.1.

8.8   Downstream Accountability

The Organization shall establish, implement, and maintain the processes necessary to ensure all MOCs are managed in conformity with this section of the Standard. In the event of a Significant Change to a Downstream Processor, they shall be re-evaluated for conformity to the applicable requirements of this section in a timely manner.

NOTE: In cases where EE is shipped directly to an IDP by the Organization's customer, all requirements of this section apply as if shipped from the Organization.

8.8.1   Downstream Disposition Chart

The Organization shall create and keep current a downstream disposition chart documenting the Recycling Chain for all MOCs that move through the Organization's control, noting any alternative uses or processes. Previous versions of downstream disposition charts shall be retained.

The downstream disposition chart shall include current information for each approved Downstream Provider and Intermediary including:

a)   Company/entity name, and
b)   Contact information, and
c)   Physical address of Processing or Final Disposal facility(ies), and
d)   Address for the headquarters office, if different, and
e)   Type of operation, and
f)   e-Stewards Certification status.

NOTE: The Organization shall ensure that Electronic Equipment under their Control is not processed by any DP, anywhere in the Recycling Chain, that has lost its e-Stewards Certification due to a Critical Non-Conformity, unless or until that Processor is re-certified.

8.8.2   Downstream Due Diligence

The Organization shall ensure that its MOCs are managed only by approved Downstream Providers and Intermediaries throughout the Recycling Chain. Documentation supporting DSP approval shall be retained, including the following, as applicable:

8.8.2.1 Processing Capability Evaluations

Prior to initial shipment and at least Annually thereafter, the Organization shall evaluate each DP to ensure it has the in-house technical capability and operational capacity and controls to further process and/or dispose of the Organization's MOCs according to the Organization's requirements.

In addition, the organization shall:

a)   Determine and take into consideration whether each DP has had regulatory violations, fines, and/or related enforcement actions in the past 5 years; and
b)   Ensure that non-e-Stewards DPs:

   1)   Manage the Organization's MOCs in a manner that meets applicable legal and regulatory requirements;
   2)   Have not had a violation or incident which within the past 5 years that would trigger the e-Stewards Critical Non-Conformity Policy; and
   3)   Have valid and current business licenses, process and facility permits, control permits, and import permits, as applicable, to properly receive and manage the Organization's materials; and
   4)   Do not store HEW for more than two years; and
   5)   Have appropriate insurance coverage and closure plans in place.

8.8.2.2 Desk Audits

Prior to initial shipment and at least Annually thereafter, the Organization shall verify that each DP other than Final Disposal facilities:

a) Manages and transfers MOCs in a manner that meets the Organization's obligations in the following sections of this Standard, as applicable:

1) Stewardship policy
2) Responsible management of EE
3) Reuse <mark>and Refurbishment</mark>
4) Materials Recovery and Final Disposition
5) Transboundary movement
6) Downstream due diligence

b) Effectively implements environmental, health, and safety controls, as well as monitoring to prevent exposure and release of toxic substances such as lead, mercury, and cadmium, either by:

1) Maintaining current EHSMS certification from a certifying body accredited for such; or
2) Implementing and maintaining a system for:

▶ Identifying and complying with legal and regulatory requirements; and
▶ Identifying and effectively responding to environmental, health, and safety risks; and
▶ Continually evaluating and improving that system and reducing the negative EH&S impacts of their operations accordingly.

8.8.2.3 Onsite Audits of Immediate Downstream Providers

Onsite audits are required unless the Organization has objective evidence that the IDP has a valid e-Stewards Certification, is a Final Disposal facility, or is a licensed & permitted End Processor located in an OECD country.

Prior to initial shipment, at least every three years thereafter, and whenever a Significant Change to the IDP occurs, perform onsite audits of each IDP in order to verify their processes and controls meet the Organization's obligations in the applicable sections of this Standard <mark>and are consistent with the information provided to the Organization during any relevant desk audits</mark>.

Onsite audits shall include verification of insurance coverage, Closure Plans, and financial surety for each IDP. The same should be performed for the IDP's Recycling Chain.

8.8.2.4 Agreements and Control Systems

a) IDPs for HEWs
Prior to initiating shipment(s) to an approved IDP for HEWs that is not a facility currently certified to e-Stewards, a Final Disposal facility, or an End Processor located in an OECD country, the Organization shall create and <mark>enforce a written</mark> agreement or contract requiring the IDP to, as applicable:

1) Permit immediate termination of the contract or agreement in the event of failure to comply with or perform any agreement provisions and continuance of said failure for 30 days after notification of such; and
2) Restrict and control the Organization's HEWs in accordance with the requirements of the Organization and the e-Stewards Standard; and
3) Establish written agreements or alternative control systems with their Downstream Providers, except Final Disposal facilities and End Processors in OECD countries, requiring each Downstream Provider in the Recycling

Chain to restrict and document downstream destinations of HEWs to facilities and Intermediaries approved by the Organization; and
4) Provide access to records required to document conformity with the Organization's requirements; and
5) Notify the Organization promptly if the IDP:

    ▶ Undergoes a Significant Change or other change in capabilities; and/or
    ▶ Is the subject of any legal/regulatory filings; and/or
    ▶ Changes their Recycling Chain.

<mark>Agreements and/or contracts shall be reviewed at least every 3 years.</mark>

b) IDPs for PCMs
Prior to initiating shipment(s) to an approved IDP for PCMs that is not a Final Disposal facility, an End Processor located in an OECD country, or a facility currently certified to e-Stewards, the Organization shall establish and maintain an agreement or other control system requiring the IDP to, as applicable:

1) Restrict and document downstream destinations of PCMs to facilities and Intermediaries approved by the Organization; and
2) Establish control systems with their Downstream Providers, except Final Disposal facilities <mark>and End Processors in OECD countries</mark>, requiring each Downstream Provider in the Recycling Chain to restrict and document downstream destinations of PCMs to facilities and Intermediaries approved by the Organization; and
3) Provide access to the records required to document conformity with the Organization's requirements; and
4) Notify the Organization promptly if any of the IDP's Downstream Providers, Intermediaries, or Final Disposal facilities change.

c) All DPs Beyond IDPs
The Organization shall ensure each DP beyond an IDP accepting its MOCs establishes and maintains control systems as described in 8.8.2.d.2 throughout the Recycling Chain.

8.8.2.5 HEW Transportation Companies

Transportation companies utilized for HEWs throughout the Recycling Chain shall:

a) Be fully authorized by regulatory agencies, as applicable; and
b) Have adequate insurance coverage consistent with the materials and transportation method; and
c) Maintain acceptable vehicle and driver safety ratings.

8.8.2.6 Records of Transfer

The Organization shall retain Shipping Records of all MOCs as follows:

a) Retain ongoing records for all outgoing shipments under the Organization's Control, and corresponding acknowledgments of receiving and Processing/Final Disposition provided by each IDP; and
b) Obtain and retain an Annual sampling of Shipping Records of shipments between each IDP and subsequent Downstream Provider in the Recycling Chain, except where a DP is currently certified to e-Stewards, including:

1) Samples from a minimum of three randomly chosen months of outgoing Shipping Records; and
2) Comparison of these records with corresponding acknowledgments of receipt, including when Intermediaries are involved.

8.9   Data Security

The Data Security provisions for those that have yet to become certified to NAID AAA Certification are found in <u>Appendix D</u>. As of July 1, 2022, all Organizations will be required to be NAID AAA Certified, at which point this section and Appendix D will sunset.

9   Performance evaluation

9.1   Monitoring, measurement, analysis, and evaluation

9.1.1   General

The Organization shall effectively monitor, measure, analyze, and evaluate the performance of its Stewardship Management System and its operations that can have a significant Stewardship impact.

9.1.2   Evaluations of compliance

The Organization shall establish, implement, and maintain a process(s) to evaluate the fulfillment of its compliance obligations at least Annually.

9.1.3   Facility inspections

The Organization shall regularly conduct and document facility environmental, health, and safety inspections in order to ensure that operational and housekeeping controls are effectively implemented on an ongoing basis.

9.1.4   Electronic Equipment flow monitoring

a) Track all Electronic Equipment
    The Organization shall establish and implement an effective system for tracking all Electronic Equipment moving through the Organization's Control.

b) Perform regular Material Balance Accounting (MBA)
    The Organization shall, at least every six months, perform a documented material balance accounting (by weight and/or unit count) reconciling all incoming quantities with all outgoing quantities of Electronic Equipment moving through the Organization's Control during the MBA period, considering the amounts in inventory (processed and unprocessed). The resulting difference shall be expressed as a percentage of total incoming quantities for the period. Corrective actions shall be taken if the final discrepancy is greater than 5%.

9.2   Internal audits

Using Qualified Auditor(s), the Organization shall conduct and document internal audits of the SMS at least Annually, to evaluate whether the stewardship management system conforms to:

a) The Organization's requirements for its SMS; and
b) The requirements of the e-Stewards Standard.

The Organization's internal audits should also identify system strengths and opportunities for improvement.

9.3   Management review

Top management shall review the SMS at least Annually, including:
a) Actions and assessments initiated according to 6.1 through 6.3, and
b) Information generated through 9.1 and 9.2; and
c) Results of external audits and inspections; and
d) Industrial Hygiene monitoring results.

The Organization shall retain documented information as evidence of management review and resulting actions and resource provision.

10   Improvement

The Organization shall continually improve its SMS and Stewardship performance, as well as take timely action to prevent and respond to instances of nonconformity.

The Organization shall retain up-to-date documented information regarding all identified nonconformities or potential hazards, including but not limited to:

a) Any nonconformity identified in internal or external audits; and/or
b) Violations cited by regulatory agencies; and/or
c) Environmental releases; and/or
d) Health & safety accidents, incidents, injuries, exposures, and near misses.

APPENDIX A: ADDITIONAL REQUIREMENTS FOR e-STEWARDS ORGANIZATIONS

A.6.1.4.1 Annual Reporting to e-Stewards Database

The following data shall be submitted in English language using the electronic form provided at http://e-stewards.org/learn-more/for-recyclers/forms/e-stewards-recyclers-annual-database-report/ regarding all Electronic Equipment entering its facility(s) and/or under its Control (including associated Ancillary Sites):

a) Address (including country) for each Processing facility and Ancillary Site(s), and a description of the site(s);
b) The number of individuals who worked for more than one month during the twelve-months, including:
    1) Full-time workers or equivalent (i.e. combine hours worked by part-time workers and convert into hours that would be worked by full-time workers); and
    2) Full-time (or equivalent) contract workers; and
    3) Volunteers;
c) Description of all Processes taking place at each facility, such as:
    1) De-manufacturing of Electronic Equipment for Materials Recovery and/or Final Disposal, in one or more of the following categories:
        ▶ Manual disassembly;
        ▶ Shredding or other mechanical size reduction and separation; and/or
        ▶ Other (define);
    2) Asset recovery, Repair/Refurbishment for reuse; and/or
    3) Metals refining; and/or
    4) Plastics recovery, and/or
    5) Other (define).
d) Total annual weight (or unit count) of Electronic Equipment, components, and materials Processed, in inventory, and under organizational Control; and
e) A current copy of the site closure plan (6.2.5) for each Processing facility.

A.8.3.1 PHPT Hazard Testing Requirements

If an Organization is performing the following PHPT operations…	…then it shall perform and document Industrial Hygiene tests for the following hazards at a minimum:
1) Breaking, cutting, crushing, shredding, or pulverizing devices with cathode-ray tubes, regardless of technologies or containment controls	▶ Lead, cadmium, barium, chromium, and compounds containing these metals, silica dust
2) Processing, removal, replacement, and/or disposal of mercury-containing components	▶ Mercury and mercury compounds, including in worker breathing zones and in the dust or on surface areas below and around the mercury-removal and storage areas
3) Using power machinery to shred, cut, break, pulverize, crack, crush, bale, or chip Hazardous Electronic Equipment or Problematic Components and Materials which may contain these hazardous substances	▶ Lead, beryllium, cadmium, asbestos, mercury, including compounds of these elements*
4) Only using a shredder dedicated to hard drives (which contain circuit boards), but not using any other shredding or mechanical size-reduction	▶ Lead, beryllium, cadmium, including compounds of these, as well as fiberglass
5) Baling and/or shredding separated circuit boards	▶ Lead, beryllium, fiberglass

6) Using thermal processes for melting, smelting, or combustion of Electronic Equipment	► Inhalable hydrocarbons, the elements beryllium, lead, mercury, and cadmium, and all compounds of these elements*
7) Using acids or solvents for precious metals or plastics Materials Recovery, or cleaning processes	► Workplace exposure tests for any acid or solvent that is indicated as an inhalation hazard in the relevant SDSs, as well as related digestive acid gases, nitrous oxide, and other identified chemical hazards

* If an organization can demonstrate that the material being Processed and the Processing technology or its by-products do NOT contain one or more of these constituents, and can provide documented evidence of this fact, then they do not need to continue to test for that constituent(s) unless the material being Processed or the Processing technology changes.

A.8.6.1 – Materials Recovery and Final Disposition Table

Type of MOC:	Acceptable & unacceptable operations for MOCs, in addition to requirements in 8.6.1
1) All identified HEW not listed below	**NEVER** ► Never disposed of in solid waste disposal operations ► Never burned or melted in open fires ► Never smelted without effective controls to capture any hazardous emissions generated
2) Asbestos	**PREFERRED** ► Containerized, labeled accurately for contents, then deposited in a lined, leachate-controlled landfill that is compliant with all relevant regulations.
3) Arsenic-containing equipment or components defined as HEW	**NEVER** ► Never openly burned or Processed in operations which release arsenic or its compounds to the biosphere; **PREFERRED RECYCLING** ► Processed by integrated smelters or other types of facilities capable of effectively recovering arsenic and arsenic compounds. **PREFERRED DISPOSAL** ► Disposed of as hazardous waste
4) Batteries – not defined as HEW	**PREFERRED RECYCLING** ► Recycled in battery recycling facilities or steel mills that recover the metal value and have appropriate air pollution controls, even if disposal is allowed by law, or **PREFERRED DISPOSAL** ► If no recycling markets or options are available, including legal exports, disposed of in legally permitted solid waste landfills.
5) Batteries – defined as HEW	**PREFERRED RECYCLING** ► Recycled in a battery recycling facility which recovers the metal value from the batteries and properly handles MOCs, or **PREFERRED DISPOSAL** ► If no recycling markets or options are available, including legal exports, disposed of in legally permitted hazardous waste disposal facilities.

Type of MOC:	Acceptable & unacceptable operations for MOCs, in addition to requirements in 8.6.1
6) Beryllium-containing components defined as HEW	**NEVER** ▶ Never Processed in incinerators of any kind; **PREFERRED RECYCLING** ▶ Sent to integrated smelters which agree to accept beryllium-containing components & are equipped to responsibly Process and capture beryllium, or **PREFERRED DISPOSAL** ▶ Sent to hazardous waste landfills licensed & permitted to manage beryllium.
7) Cathode ray tubes (CRTs) (with or without vacuum) & CRT and other leaded display glass that is uncleaned (in any form), with or without frit, fines, and processing residuals that contain lead, Phosphors, or silica dust	**ALWAYS** Only Processed or disposed of by facilities that: ▶ Are actively performing relevant operational processes; and ▶ Store them for a maximum of two years (if allowed by law) from the date received by the company at any location, regardless of longer periods that governments may allow; **PREFERRED** Processed by any of the following: ▶ A facility which thoroughly cleans the glass of Phosphors, coatings, fines, and particulates and manages the resulting cleaned leaded glass per (8) below and processing residuals per (10) below; or ▶ A lead smelter, integrated copper smelter, or other facility using technology that can be demonstrated by the facility in writing to recover at least an average of 95% of the lead from the display glass, frit, fines, and processing residuals. **CONDITIONALLY ALLOWABLE** Processed by any of the following: ▶ Lead smelter, integrated copper smelter, or other facility using technology which utilizes leaded or mixed display glass but does not recover an average of 95% of the lead; ▶ Placed into a dedicated cell, with the potential for future recovery, in a lined, leachate controlled, and monitored solid waste landfill (unless prohibited by law), if the glass/materials are first stabilized with a pre-treatment method in accordance with applicable laws and regulatory requirements; and ▶ Placed into a lined, leachate controlled and monitored hazardous waste landfill in accordance with applicable laws and regulatory requirements. **NEVER** ▶ Never Processed in incinerators of any kind

Type of MOC:	Acceptable & unacceptable operations for MOCs, in addition to requirements in 8.6.1
8) Cleaned display glass in any form containing lead	**ALWAYS** Only Processed or disposed of by facilities that: ▶ Are actively performing relevant operational processes; and ▶ Store them for a maximum of two years (if allowed by law) from the date received by the company at any location, regardless of longer periods that governments may allow. **PREFERRED** Processed by any of the following: ▶ A lead smelter, integrated copper smelter, or other facility using technology that can be demonstrated by the facility in writing to recover at least an average of 95% of the lead from the display glass, frit, fines, and processing residuals; ▶ Alternative uses and processes pre-approved per 8.6.2; **CONDITIONALLY ALLOWABLE** Be Processed in any of the following: ▶ A lead smelter, integrated copper smelter, or other facility using technology which utilizes leaded or mixed display glass but does not recover an average of 95% of the lead; and ▶ Placed into a dedicated cell, with the potential for future recovery, in a Lined, leachate controlled, and monitored solid waste landfill if the glass/residues are first stabilized with a pre-treatment method, in accordance with applicable laws and regulatory requirements; and ▶ Placed into a lined, leachate controlled and monitored hazardous waste landfill in accordance with applicable laws and regulatory requirements. **NEVER** ▶ Never Processed in incinerators of any kind
9) CRT glass that is non-leaded & thoroughly cleaned of phosphors, coatings, frits, & fines	NOTE: Cleaned, non-leaded CRT glass does not have restrictions for Final Disposition. See 3.21 Hazardous Electronic Waste or Hazardous e-Waste (HEW).

Type of MOC:	Acceptable & unacceptable operations for MOCs, in addition to requirements in 8.6.1
10) CRT Processing residues and CRT residues including Phosphors	**ALWAYS** Only Processed or disposed of by facilities that: ▶ Are actively performing relevant operational processes; and ▶ Ensure that storage never exceeds two years (if allowed by law) from the date received by the company at any location, regardless of longer periods that governments may allow. **PREFERRED** Processed in any of the following facilities that have been notified and have consented in advance in writing to accept these materials: ▶ A facility that reclaims rare earth & critical metals; ▶ A lead smelter, integrated copper smelter, or other facility using technology that can be demonstrated by the facility in writing to recover at least an average of 95% of the lead from the display glass, frit, fines, and processing residuals; ▶ Alternative uses and processes pre-approved per requirements; or ▶ Unless forbidden by law, lined, leachate controlled and monitored hazardous waste landfill, after meeting any legal requirements for pre-treatment. **CONDITIONALLY ALLOWABLE** ▶ A lead smelter, integrated copper smelter, or other facility using technology which utilizes processing residues but does not recover an average of 95% of the lead; or ▶ Placed into a dedicated cell, with the potential for future recovery, in a lined, leachate controlled, and monitored solid waste landfill (unless prohibited by law), if the residues are first stabilized with a pre-treatment method in accordance with applicable laws and regulatory requirements; and placed into a lined, leachate controlled and monitored hazardous waste landfill in accordance with applicable laws and regulatory requirements. **NEVER** ▶ Never Processed in incinerators of any kind
11) Glycol-based coolants	**PREFERRED RECYCLING** ▶ Recycled in a facility that decontaminates and restores coolant properties (preferably) **PREFERRED DISPOSAL** ▶ Finally Disposed of with treatment as a specially controlled liquid waste.

Type of MOC:	Acceptable & unacceptable operations for MOCs, in addition to requirements in 8.6.1

12) Inks and toners	**ALWAYS**
	Managed in facilities that prevent explosions and respiratory hazards, according to the following hierarchy, in order of preference:
	
	PREFERRED MANAGEMENT HIERARCHY (most to least preferred in order below)
	▶ Reuse cartridges/containers by refurbishing or remanufacturing and refilling them;
	▶ Recycle by emptying and cleaning cartridges/containers, then recycling them in plastics recovery facilities, and handle removed ink & toner as follows in order of preference:
	  a) Recover carbon black toner for reclamation and use in manufacturing, if possible;
	  b) Dispose of inks & toners in solid waste landfills if the ink or toner is determined to be without hazardous characteristics;
	  c) Dispose of inks & toners in hazardous waste landfills
	▶ Dispose of entire units including inks and toners in hazardous waste landfills or incinerators;
	▶ Dispose of ink and toner cartridges and containers in a solid waste landfill only if the landfill has been notified and consented in writing in advance to accept them, as profiled & documented.

13) Mercury and mercury-containing devices	**PREFERRED MANAGEMENT HIERARCHY (most to least preferred in order below)**
	▶ Process at mercury retort facilities that have the capacity to remove mercury from the equipment and can achieve a minimum of 99% mercury capture and a purity level of elemental mercury of 99.99% recovery and then disposed of as follows, in order of preference:
	  a) Permanently retire the recovered elemental mercury in a monitored, secure, and retrievable long-term mercury storage facility, and not recovered for reuse;
	  b) Allow mercury to be sold for legal re-use.
	▶ Allow mercury-containing waste to be landfilled in a hazardous waste landfill in accordance with applicable laws and regulatory requirements.
	
	NEVER
	▶ Never incinerate (including waste-to-energy incineration);
	▶ Never 'recover' in metals smelting operations unless they are equipped to fully recover at least 99% of the mercury.

Type of MOC:	Acceptable & unacceptable operations for MOCs, in addition to requirements in 8.6.1
14) Plastics with Halogenated additives or other MOC-containing plastics.	**PREFERRED MANAGEMENT HIERARCHY (most to least preferred in order below)** ▶ Separated by polymer, cleaned, and then mechanically recycled by plastics recovery facilities, with any unrecyclable plastics, waste materials, and/or residues disposed of in accordance with the continuing hierarchy below. ▶ Placed into a dedicated cell, with the potential for future recovery per above, in a lined, leachate controlled, and monitored solid or hazardous waste landfill in accordance with applicable laws and regulatory requirements. ▶ Placed into a hazardous or solid waste lined, leachate controlled, and monitored landfill. **CONDITIONALLY ALLOWABLE** ▶ Processed in an energy recovery facility using a thermal process that is licensed and permitted to process these materials, and which continuously monitors, captures, and restricts emissions from flue gas stacks; **NEVER** ▶ Never melted or burned in open fires or incinerators without state-of-art pollution capture technology and methods.
15) Polychlorinated biphenyl-containing components with PCB concentrations unknown or above 50 ppm. Note: *Concentration level applies to the PCB bearing material (e.g. oil or plastic) inside of the device or component, not the concentration of PCB to the entire device or component.	**ALWAYS** ▶ Dismantled & Processed by a processor that is trained and compliant with both Basel Convention & Stockholm Convention guidelines and obligations; and additional applicable national laws. **PREFERRED** ▶ Permanently retire or destroy in facilities licensed and permitted for long-term storage or destruction of PCBs. **NEVER** ▶ Never opened, recycled, or shredded, except by PCB processors that meet qualifications defined in remaining requirements in this section.
16) Printed circuit boards, or components or materials which contain lead solders, Halogenated Materials, or fail threshold levels in compliance obligations	**PREFERRED** ▶ Pre-processed, if needed, in facilities which monitor and prevent releases of hazards; and ▶ Processed by End Processors that are either: a) Pyrometallurgical facilities that monitor and restrict fumes and emissions; or b) Hydrometallurgical facilities that control and manage fumes, and all hazardous residues to prevent releases to the environment and/or exposures.
17) Radioactive wastes	**ALWAYS** ▶ Transferred to a facility that meets international and national standards for safe storage or disposal of radioactive wastes.

Type of MOC:	Acceptable & unacceptable operations for MOCs, in addition to requirements in 8.6.1

18) Residuals from Processing, pollution controls, and housekeeping	**ALWAYS**
	▶ Managed as HEW unless the organization can regularly demonstrate that a specific type of residual:
	  a) Falls below the threshold levels specified by the definitions of Exposure Limit or HEW as applicable; and
	  b) Is not considered a hazardous waste by regulation; and
	  c) If allowed by law:
	    i. Residuals which contain identifiable fractions of metals or other materials, are reprocessed within the organization's Processing systems if controls are protective, and/or
	    ii. Residuals which contain high enough levels of precious metals or other materials to make them recyclable in either pyro- or hydrometallurgical facilities are Processed according to requirements for printed circuit boards above.

19) Selenium-containing components	**ALWAYS** ▶ Transferred to a facility licensed and permitted to Recycle or dispose of selenium.
20) Slag and other residuals from Processing HEW	**ALWAYS** ▶ Managed as HEW according to applicable requirements of this Standard until they reach Final Disposition, if they fail the threshold levels specified by the definition of Exposure Limit, as applicable.

A.8.7.3 e-Stewards Shipping Declaration for Repair/Refurbishment

e-STEWARDS SHIPPING DECLARATION FOR REPAIR/REFURBISHMENT	
HOLDER WHO ARRANGES THE TRANSBOUNDARY MOVEMENT	
Company name:	Contact name:
E-mail:	Phone:
Address:	Country:
INTERNATIONAL CARRIER	
Company name:	Contact name:
E-mail:	Phone:
Address:	Country:
IMPORT INFORMATION	
IMPORTER	
Company name:	Contact name:
E-mail:	Phone:
Address:	Country:
RECEIVING REPAIR FACILITY (IF DIFFERENT THAN IMPORTER)	
Company name:	Contact name:
E-mail:	Phone:
Address:	Country:
DECLARATION	
I, the holder of the Electronic Equipment listed in this shipment, hereby declare that the Electronic Equipment being transported is either untested or tested as not being Fully Functional. I further declare that the information herein is accurate.	Name:
	Signature:
	Job Title:
	Date:
Export Provisions of e-Stewards Standard: No export should take place without careful review of sections 6.1.3 and 8.7 to determine whether the export is compliant with the Standard and the law. NOTE: Mobile Batteries exported for reuse must be tested and meet relevant requirements in Section 8.5.2 of the e-Stewards Standard.	

Official use	SHIPMENT INFORMATION					
	1	2	3	4	5	6
	Type of Equipment	Model #	Serial Number (if applicable)	Model Year	Qty	Test Status

A.8.7.4 e-Stewards Shipping Declaration of Full Functionality

e-STEWARDS SHIPPING DECLARATION OF FULL FUNCTIONALITY	
HOLDER WHO ARRANGES THE TRANSBOUNDARY MOVEMENT	
Company name:	Contact name:
E-mail:	Phone:
Address:	Country:
COMPANY RESPONSIBLE FOR EVIDENCE OF FUNCTIONALITY AND TESTING (IF DIFFERENT THAN HOLDER)	
Company name:	Contact name:
E-mail:	Phone:
Address:	Country:
INTERNATIONAL CARRIER	
Company name:	Contact name:
E-mail:	Phone:
Address:	Country:
IMPORT INFORMATION	
IMPORTER	
Company name:	Contact name:
E-mail:	Phone:
Address:	Country:
USER, RETAILER, DISTRIBUTOR (IF DIFFERENT THAN IMPORTER)	
Company name:	Contact name:
E-mail:	Phone:
Address:	Country:
DECLARATION	
I, the holder of the Electronic Equipment listed in this shipment, hereby declare that prior to export the used equipment/components in this shipment were tested and determined to be in good working condition and Fully Functional.* I also confirm that this equipment is being exported for Direct Reuse** and not for repair, recycling, or Final Disposal.	Name: Signature: Job Title: Date:

* **Fully Functional**: Electronic Equipment and/or components that has been tested and demonstrated to be:
- Capable of performing the Key Functions that it was designed or Repurposed to perform; and
- Safe for use and handling, and without structural problems that could lead to damage or lack of functionality.

NOTE: Mobile Batteries exported for reuse must be tested and meet relevant requirements in Section 8.5.2 of the e-Stewards Standard.

Key Functions: The essential function(s) of a unit of equipment that will satisfactorily enable the equipment to be safely used as originally intended, or, if Repurposed, in accordance with its marketed description

** **Direct Reuse**: Continued use, by someone other than the previous user, of Electronic Equipment that has been tested and determined to be Fully Functional for the originally intended, Repurposed, or upgraded purpose, without need for Repair/Refurbishment.

Official use	SHIPMENT INFORMATION					
	1	2	3	4	5	6
	Type of Equipment	Model #	Serial Number (if applicable)	Model Year	Qty	Test Status

APPENDIX B: ADMINISTRATIVE RULES, POLICIES, AND PROCEDURES

The following requirements apply to all e-Stewards Organizations/Processors:

a) General

e-Stewards Certification is a voluntary, third-party certification system available to companies and institutions operating Processing facilities for Electronic Equipment. Organizations shall be either concurrently audited and certified to ISO 14001:2015 and the NAID AAA Certification (NAID AAA Certification is required after July 1, 2022) or already be certified to these prior to e-Stewards Certification. Only Organizations that have been certified by an accredited e-Stewards Certification Body and that have signed a valid License Agreement with the e-Stewards Program Administrator may be recognized as certified e-Stewards Processors. These companies are listed definitively on the e-Stewards website, found at www.e-stewards.org.

b) Countries where the e-Stewards Program is available

e-Stewards Certification is available to companies and institutions operating Processing facilities in any country where e-Stewards accreditation and Certification Bodies are allowed to work.

c) Eligibility for certification

e-Stewards Certification is available to companies or institutions with facilities that perform significant Processing of Electronic Equipment, including but not limited to refurbishers, asset managers, dismantlers, shredders, and Materials Recovery operations. Such facilities may be owned by for-profit, non-profit, or public entities.

e-Stewards Certification is currently not available to Intermediaries, home-based operations, or entities that only collect Electronic Equipment without conducting Processing operations. End Processors should contact the e-Stewards Program Administrator to explore eligibility.

Certification is only available to Prison Operations meeting the criteria found in 8.4.5.

d) Scope of Certification

Ancillary Sites: When an Organization owns or Controls Ancillary Sites, every such Ancillary Site shall be included in the SMS of the associated certified Processing facility of an Organization. The certified e-Stewards Organization shall assure, through its internal processes, that the applicable elements of the SMS have been implemented at each Ancillary Site, including but not limited to internal auditing, material balance accounting, training, and downstream accountability.

Note: Certification Body auditors may choose to audit Ancillary Sites in order to increase the confidence of conformity to applicable requirements.

Country-wide certification of multi-sited Organizations: The e-Stewards Certification Program requires a multi-sited Organization to have all of its Processing facilities within one country e-Stewards Certified when they are owned by the same entity (i.e. fully owned or owning a controlling interest). This includes all eligible Processing facilities held by the entity(s), as well as all of its electronics Processing subsidiaries and separate electronics Processing businesses within one country, regardless of brand. All of these facilities within a country shall become e-Stewards Certified within 18 months of the initial facility certification. If this deadline is not met, then all of the e-Stewards Certifications in that country shall be suspended until all facilities in the country achieve Certification. During the 18-months, the e-Stewards website will reflect individual facilities that have completed certification and list others held by the entity with a designation of 'in process.'

If an eligible new facility is opened or acquired after initial facility certification(s), that new facility shall be certified within 18 months of its opening or acquisition and will be listed on the e-Stewards website as 'in process' until certified.

If an Organization has one management system for multiple facilities, it may choose to have either separate certificates for each facility or one multi-site certificate.

e-Stewards Committed: When an Organization wishes to indicate publicly that it is in the process of expanding its operations to new countries, and is committed to mentoring its new facilities to achieve full certification within 2 years of its commitment in these new countries, these facilities may be given the designation of e-Stewards Committed. These e-Stewards Committed sites are under the control of the e-Stewards Certified Organization which accepts full responsibility for them and may see its certification revoked under the Critical Non-Conformity Policy should there be an egregious or willful violation of the e-Stewards Standard by the e-Stewards Committed sites. These e-Stewards Committed sites are subject to the e-Stewards Performance Verification program but they are not certified and will be listed in a separate area of the e-Stewards website (not on the official list and map). The e-Stewards Committed designation is administered by the e-Stewards Program Administrator and not by the e-Stewards accredited Certification Bodies.

Parent company: It is not a requirement that a parent company of an e-Stewards Certified Processor becomes certified, nor is it a requirement that any other subsidiaries owned by that parent company become certified.

Subsidiaries: However, if an e-Stewards Certified Processor owns another subsidiary that Processes or Controls Electronic Equipment, all subsidiary facilities within the same country shall also become e-Stewards certified concurrent with or subsequent to the e-Stewards parent company's certification, and within 18 months of the initial facility certification, irrespective of brand names used by Organizations. The rules for "use of logo" [see g) below] shall always apply.

Separate electronics Processing organizations/companies with same ownership: If the owner(s) of an e-Stewards Processor also owns or owns a controlling interest in a separate electronics Processing entity within one country, all of these Processing facilities are also required to become e-Stewards Certified, regardless of brand names used by the entities. Rules for "use of logo" [see g) below] shall always apply.

Co-location: While it is permissible that an e-Stewards Certified Processor is co-located with other entities, the e-Stewards Processor shall be responsible for controlling their operations and all EE in conformity with the Standard, including downstream accountability and impacts of their operations upon co-located entities' areas. Additionally, a co-located e-Stewards Processor shall ensure that its workers, visitors, and customers on-site are protected against health and safety hazards that may be caused by co-located entities.

e) Application to Certification Bodies (CB)
Only Certification Bodies (CBs) that have been accredited under the ANAB e-Stewards Program or another accreditation program approved by the e-Stewards Program Administrator are eligible to certify organizations within the e-Stewards Certification Program. Unaccredited certificates are not permitted.

An e-Stewards applicant that meets the scope and eligibility requirements of this Standard may apply to any of the approved and accredited CBs that are listed on the e-Stewards website. In the application, the CB will request (see Appendix C) and the applicant shall provide information necessary for the CB(s) to properly document and determine a number of issues, including the:

▶ Time required to conduct the certification audits, and
▶ Competency required to conduct the certification activities.

Applicants shall submit an ownership chart to CBs depicting all entities and their legal relationships, including parent companies, subsidiaries, and separate companies involved in electronics Processing, including Refurbishment, Recycling, etc. (see d) above).

f) Contracting with a CB

Once a CB has been selected, the e-Stewards applicant will be required to enter into a three-year contract, at a minimum, for audit and certification services covering all required facilities (see d) above) to be certified within a given country.

This contract shall include a surveillance program requiring a series of surveillance audits that shall be conducted at least Annually but may be conducted more frequently. The applicant and CB shall agree upon the surveillance frequency that best meets the needs of the organization and the CB's need to assure conformity to this Standard. Surveillance audits may be witnessed by the e-Stewards Program Administrator. In addition, if serious concerns arise, announced or unannounced special audits may be required by the CB.

Once contracted with a CB, the organization shall fill out and apply to the e-Stewards Program Administrator prior to the Stage 1 audit. The application will request company information such as facility address, contact information and an overview of business services offered. After the application is submitted to the Program Administrator, the Organization will receive required e-Stewards documents to review, and a chart with deadlines for fees and reporting requirements due to the e-Stewards Program Administrator.

When the Organization to be certified consists of more than one facility, it is required that the Organization contracts for the certification of all eligible processing facilities required to be certified within one country. The organization may elect to certify all facilities at one time or to certify them sequentially. However, all facilities required to be certified shall be certified within 18 months of the initial certificate issuance. An Organization that fails to certify all of its required facilities within 18 months shall have all of its e-Stewards certifications suspended. No site- sampling is permitted for auditing of multi-sited organizations for the initial certifications, but approved site- sampling methods (see Appendix C) may be permitted, as approved by the Certification Body, during the surveillance and re-certification stages.

g) Certification, Licensing, and Use of Logo

When the CB has concluded and confirmed that all certification requirements are met, the CB will notify the e-Stewards Program Administrator, who will prepare an annual License Agreement with the Organization. Only after a License Agreement is executed may an e-Stewards certificate be issued by the CB. Annual fees for Marketing and License Agreement and the Performance Verification program apply.

When a Certification Body suspends an Organization's certificate, the e-Stewards Program Administrator will automatically suspend the License Agreement, thereby disallowing the continued use of the e-Stewards logo by the suspended site(s). The License Agreement may be restored when the certificate is reinstated, or terminated if the certificate is withdrawn.

The CB is required to withhold, withdraw, or suspend, as appropriate, a certificate to an Organization if the e-Stewards Program Administrator has issued a Critical Non-Conformity to that organization, unless and until the Program Administrator has cleared the Critical Non-Conformity, in writing, to the CB.

A separate License Agreement shall be executed for an Organization for each country where certification is acquired unless the Organization qualifies and has been approved by the CB for multinational site sampling, in which case one License Agreement may be executed for all Processing facilities allowed for multinational sampling.

Rules for the use of the logo are described in the e-Stewards License and Marketing Agreement. The Agreement shall be renewed annually prior to its expiration date.

The e-Stewards® name and logo are registered trademarks of Basel Action Network (BAN), the e-Stewards Program Administrator. Use of these marks by any entity other than BAN and its Licensed e-Stewards Certified Processors shall only be allowed by written permission from and controlled by the License Agreement with, BAN.

Basel Action Network (BAN) retains ownership of this Standard and its use. This document is proprietary and its use is strictly controlled by Basel Action Network.

An Organization may only claim to meet this Standard and/or be a Certified e-Stewards Processor after the Processor is both:

▶ Licensed to use the e-Stewards name and logo by BAN or the e-Stewards Program Administrator; and
▶ Currently certified by an e-Stewards accredited Certification Body.

Any unauthorized use, or claim of self-certification or self-declaration of conformity, first or second-party certification to this Standard without written permission or under license, all or in part, is strictly forbidden and likely to be unlawful under the terms of BAN's e-Stewards Trademark.

Misrepresentation of the scope of certification by e-Stewards Processors may result in suspension or withdrawal of the certificate.

h) Significant Changes

The Organization shall make both their CB and the e-Stewards Program Administrator aware of any Significant Changes that may impact ongoing conformity with the Standard within 15 business days of the change(s), or less if required by their CB. The Organization shall permit the CB to conduct an evaluation of the reported changes and their effects on conformity, including special on-site audits of the Organization, as necessary.

When an Organization moves its Processing facility(s) to a new location, it is required to obtain a new certificate for the new site including the new address, prior to that location being listed as certified on the e-Stewards' and the Organization's websites,

NOTE: The Organization is encouraged to inform their CB well prior to the move to allow time for the CB to define and implement the process it requires to establish confidence in the scope and effectiveness of the (moved) management system and operation to conform to e-Stewards requirements.

If a Certified e-Stewards Processor is purchased by another company or entity and under new ownership, a new License Agreement shall be executed with the e-Stewards Program Administrator after the CB has verified the Organization is eligible for certification.

i) Critical Non-Conformity Policy

Certified e-Stewards Organizations, including those that have contracted for certification, are subject to the "Critical Non-Conformity (CNC) Policy" which may impose sanctions upon e-Stewards Organizations when and if objective evidence is established of egregious and/or willful violations of this Standard which could bring disrepute upon the e-Stewards Certification Program or seriously violate the Stewardship commitment of the Standard. The CNC Policy addresses non-conformity above and beyond the typical minor or major non-conformity that may be raised by the CB auditors during initial, surveillance, or re-certification audits of the Organization. The Critical Non-Conformity Policy, including the e-Stewards appeals process, is available on the e-Stewards website.

j) Oversight by e-Stewards Program Administrator/Conformity Assurance

An Organization shall permit any reasonable level of oversight by the e-Stewards Program Administrator, or a third party designated by them, of any and all auditable Certification aspects, including access to records providing evidence. This may include the Program Administrator witnessing some onsite CB audits, with or without advance notice. Findings shall normally not be released to any third party. However, in cases involving evidence of Critical Non-Conformity, the findings of a CNC may be publicly reported by the Program Administrator.

k) Performance Verification

Distinct from the conformity assessment as practiced by CBs and their auditors, the e-Stewards Program Administrator also operates two forms of Performance Verification. All e-Stewards Certified Organizations agree firstly, as part of their License Agreement with the e-Stewards Program Administrator, that they will be subject to random unannounced inspections. Secondly, they will be subject to the random deployment of GPS tracking devices placed into their company's incoming Electronic Equipment streams. This program may lead the discovery of non-conformities including Critical Non-Conformities or a 'bill of good health.' Results of the program will be made available to the e-Stewards Certified Processor at least once per year.

APPENDIX C:
REQUIREMENTS FOR e-STEWARDS CERTIFICATION BODIES
AND ACCREDITATION BODIES

The following requirements apply to approved accreditation bodies (ABs) and certification bodies (CBs) that are performing audits and certifying e-Stewards Processors in accordance with the e-Stewards® Standard for Responsible Recycling and Reuse of Electronic Equipment© Version 4.0 and subsequent transitions to the 4.0 Publication Series. The e-Stewards Certification Program relies on global standards for accreditation bodies (ISO 17011) and certification bodies (ISO/IEC 17021-1) and includes additional requirements published by the International Accreditation Forum (IAF).

The requirements of the e-Stewards Standard may be clarified by the issuance of Sanctioned Interpretations by the e-Stewards Program Administrator and the Sanctioned Interpretations shall be binding upon ABs, CBs, and e-Stewards Organizations at all stages, effective 30 days following the publication date.

Each adopted set of Sanctioned Interpretations will be incorporated into the Standard periodically and a new version of the entire Standard issued accordingly (e.g. 4.1, 4.2, etc.). The revisions will be identified and made available in Appendix E.

a) Accreditation of Certification Bodies
Interested CBs shall first submit a pre-application to the e-Stewards Program Administrator and be pre-approved in accordance with e-Stewards CB pre-approval criteria before the application to any approved e-Stewards accreditation body is made. An application fee shall apply.

Only CBs that have been accredited under the ANAB e-Stewards program or another accreditation program approved by the e-Stewards Program Administrator are eligible to participate in the e-Stewards Certification Program.

Candidate e-Stewards CBs shall initially deem competent and designate an e-Stewards program manager, an e-Stewards certification decision-maker, an e-Stewards designated technical review person, and at least two e-Stewards lead auditors, as defined by the CB and requirements in section j) of this Appendix, prior to achieving accreditation. The same person may perform some of the non-auditor roles, as long as there is no conflict of interest. Candidate e-Stewards CBs and their e-Stewards audit team members shall be familiar with the Basel Convention, including its Annexes (www.basel.int).

The e-Stewards Program Administrator requires that any CB operating within the e-Stewards certification program must demonstrate initial and ongoing satisfactory performance. Satisfactory performance is defined by adherence to the e-Stewards accreditation requirements and the e-Stewards Critical Nonconformity Policy, as well as additional performance measures defined by the e-Stewards Program Administrator as documented in this Appendix and applicable Sanctioned Interpretations.

The following are likely to constitute unsatisfactory CB performance:

1) The CB is not current with licensing fees required by the e-Stewards Program Administrator;
2) The CB fails to report initial certifications of clients or any certification status changes to Program Administrator, as required by section k);
3) The e-Stewards CB has been suspended by an approved AB for nonconformity with the e-Stewards program requirements;
4) The CB has been suspended by an approved AB for nonconformity with ISO 14001, or nonconformity to any industry-specific standard (e.g. TL 9000, AS9001) more than once within three years; and/or

5) The CB has operated in any other manner that, at the sole discretion of Program Administrator's executive management, could bring disrepute to the e-Stewards certification program or the e-Stewards Program Administrator.

The e-Stewards Program Administrator will consider the implications of any evidence of unsatisfactory performance and will make its judgment for action based upon these implications. Corrective action by the CB may be required by the e-Stewards Program Administrator. Failure to demonstrate satisfactory performance and/or failure to effectively implement required corrective actions may result in the e-Stewards Program Administrator discontinuing a CB's right to participate in the e-Stewards program for up to three years following the infraction. If discontinued by the e-Stewards Program Administrator, the CB will be required to complete the initial accreditation application process with the e-Stewards Program Administrator and the approved AB.

The e-Stewards program discontinuation action and duration of it will be determined solely by the e-Stewards Program Administrator, and there shall be no refund of any application or licensing fees collected.

b) Copyrights
Accredited e-Stewards CBs will be granted the right to use the e-Stewards® mark and Standard(s) in conjunction with their marketing and certification programs. CBs shall be required to sign a Licensing Agreement with the e-Stewards Program Administrator that controls the use of the e-Stewards registered logo and trademark. A licensing fee is applicable, levied upon accredited CBs in accordance with the Program Administrator's license fee structure.

Participating CBs shall strictly observe the copyright restrictions related to the e-Stewards Standard(s), which are described inside the title page of this Standard, and the copyrighted restrictions related to the e-Stewards mark, which are described in Program Administrator's licensing agreement.

The CB shall protect the e-Stewards mark and name from misuse by the CB and by any of its certified and/or candidate clients through the same due diligence required of auditors to guard against misuse of the CB mark and AB symbol.

c) Client Applications to CBs for e-Stewards Certification and Scope of Certification
Organizations may provide a range of processing services that must be understood and considered by the CB during the preparation of a quotation for auditing, certification, and subsequent audit planning. Applications which are provided and received by CBs shall specifically require information needed to identify the scope of services/activities provided by each Organization, relative to the Standard, in order to determine which Processing facilities [Appendix B, letter d)] and Ancillary Sites (section d of this appendix] are both eligible for and required to be included in the e-Stewards certification.

Therefore, at a minimum Organizations must provide CBs with the information listed below, as well as any additional information required by the CB:

1) All Processing facilities and Ancillary Sites that are located within the same country that certification will be held, including physical addresses of each
2) All subsidiary Processing facilities that are fully or majority-owned by the same owner(s) within that country
3) All other separate electronics Processing companies/entities that are fully or majority-owned by the same Controlling owner(s) or spouse or legal partner regardless of brand [see Appendix B, section d]
4) A written/graphic ownership chart depicting all entities required to be certified in Appendix B, paragraph (d) and their legal names and relationships, including parent companies, subsidiaries, and separate companies involved in electronics processing regardless of brand
5) The number of personnel (staff and contract) associated with each location for certification
6) All activities being performed at all Ancillary Sites

7) Data destruction services provided by the applicant described in detail until NAID certification becomes mandatory

8) Potentially Hazardous Processing Technologies (PHPTs) that are employed at each facility (e.g. shredding, crushing, thermal or chemical processes)

9) An accurate, up-to-date description or diagram indicating the extent of the processing chain that begins with the applicant e-Stewards Organization and ends with Final Disposition of all Materials of Concern and/or equipment/components going for reuse, which comes through the organization's facility and/or control

10) Description of exportation of Materials of Concern, directly or indirectly (e.g. through Downstream Providers or Intermediaries), including Electronic Equipment going for repair, reuse, processing, and final disposal

11) Any current ISO 14001 certification by an ANAB-accredited CB, or a CB accredited by an IAF-member accreditation body

12) Any current ISO 45001 (or BS OHSAS 18001 until migration period has ended) certification
    NOTE: Certification to these standards is not an e-Stewards program requirement.

d) Audit Person-Days and Audit Planning

When quoting e-Stewards certification services, the CB shall consider the information required at the application stage [section (c)] and quote in accordance with the requirements of the International Accreditation Forum (IAF) Mandatory Document for Duration of QMS and EMS Audits, IAF MD 5 - current version and IAF Mandatory Document for the Application of ISO/IEC 17021-1 for Audits of Integrated Management Systems, IAF MD11 - current version, as applicable (see www.iaf.nu).

For the purpose of making the required calculations for the audit time of an integrated management system per IAF MD11 section 2.2 or 2.3, it shall be assumed that the audit time for the e-Stewards Standard V4.0 is identical to the audit time required for ISO 14001 for the same Organization.

Organizations shall be either separately or concurrently audited to ISO 14001 unless already certified to it. If the Organization is not yet certified to ISO 14001, the CB shall require the Organization to either first become ISO 14001 certified by an IAF member accreditation body or shall quote certification to ISO 14001 in conjunction with e-Stewards certification, either separately or via an integrated audit in accordance with IAF MD11.

If the Organization requesting e-Stewards certification services is currently ISO 14001certified, the CB shall quote the initial e-Stewards certification audit for no fewer days than would be required for an ISO 14001 audit of the same Organization. Subsequent (surveillance and recertification) audits may follow the requirements of IAF MD11, if applicable. CBs are encouraged to respect the certifications issued by other accredited CBs, relevant to the e-Stewards Standard and certification to ISO 14001. Objective evidence of current certification to ISO 14001by another accredited CB shall be considered in the planning of an e-Stewards audit and associated quotation for services with the intention of minimizing redundancy and maximizing value for the e-Stewards Organization.

Ancillary Sites owned or Controlled by a certified e-Stewards Organization shall be included and documented within the Organization's management system, and applicable operations at Ancillary Sites shall be addressed by the Processing facility management system, including material balance accounting, internal audit, and downstream accountability. However, the CB need not routinely audit these Ancillary Sites for conformity and these sites shall not appear on the certificate of conformity for the Organization. Auditors should verify, through available objective evidence, that Ancillary Sites are addressed in the management system. Ancillary Sites that are proximate to the Processing facility being certified may be visited, as time permits during routine audits by auditors, as a means to confirm that appropriate system controls are in place at Ancillary Sites. Otherwise, auditors should seek evidence of such controls during Processing facility audits associated with any particular Ancillary Site. NOTE: Ancillary Sites are not allowed to perform Processing activities such as dismantling, shredding, exporting, or refurbishing Electronic Equipment (see definition of Ancillary Sites). If so, they shall be considered Processing facilities, requiring certification.

e) Contracting with the e-Stewards Organization

CB contracts with all e-Stewards Organizations shall include the following special conditions above and beyond standard contract terms:

1) Organizations shall permit both announced and unannounced audits, including special surveillance audits, by the CB, AB, and/or the e-Stewards Program Administrator as part of their oversight functions;
2) Organizations shall agree to and allow the CB to share any audit or certification-related information with the AB, and/or e-Stewards Program Administrator upon request by Program Administrator during or after the contract period;
3) The e-Stewards Program Administrator is permitted to join any audit as an observer (announced or unannounced);
4) Candidate and certified Organizations shall execute an annual License Agreement with the e-Stewards Program Administrator prior to receiving their certificate(s) from their CB;
5) All Processing facilities, consistent with requirements in Appendix B, section d), shall be included in the contract for certification, and are required to be certified within 18 months of certification of the initial facility; and
6) All Ancillary Sites that are owned or Controlled by the Organization shall be included in and managed appropriately under the management system(s).
7) The agreed degree of the level of integration of management systems for application of IAF MD11.

If the candidate Organization seeks certification of a facility that is located in a country that is not an OECD, EU, or EFTA member country, the e-Stewards certification body must submit an application to the e-Stewards Program Administrator and receive written approval prior to proceeding with a contract for facility certification in any of the relevant countries.

f) Multi-Site Certification

Organizations with more than one Processing facility within one country must certify all Processing facilities as required in Appendix B, section (d).

When a multi-sited Organization requests certification, the CB shall not permit any certification process to begin unless all Processing facilities located in that country are contracted for e-Stewards certification. Certifications of all facilities/e-Processing companies under the same ownership shall be completed within 18 months of the initial facility certification. When multiple CBs are involved in an Organization's company-wide certification, the CB that has certified the headquarters site shall be the CB of record for the corporate certification.

On the lead-up to achieving company-wide certification, individual facility certificates may be granted.   These certificates, however, shall be revoked if all required facilities are not certified within 18 months of the first Processing facility certification, unless the Program Administrator has granted an extension of the deadline to the CB due to extenuating circumstances. The extension will be retained as documented information by both the CB and the organization.

Site sampling shall NOT be permitted for the initial certification of any of an Organization's Processing facilities, but may be allowed after each facility has been initially audited and certified, if allowable in accordance with IAF Mandatory Document for the Certification of Multiple Facilities Based on Sampling, IAF MD 1 (current version). In other words, site sampling may be permissible only during the surveillance and/or recertification audits.

Multinational site sampling for multinational Organizations is only permissible if the CB chooses to offer this type of complex scheme to their clients, all requirements in IAF MD 1 are met, and all the following are met:

1) The multi-sited, multinational e-Stewards Organization is issued only one certificate covering all e-Stewards processing facilities in all countries in which they choose to apply multinational sampling. (NOTE: There may be

      other countries in which the client has certified e-Stewards facilities, but they are not required to apply multinational sampling to all such countries, leaving it up to respective CBs to assure proper use of logo irrelevant of the location of the Processing facilities); and

2) The single certification provided to a multinational Organization is for one management system across all countries concerned (i.e. one system centrally controlled by one management system headquarters), and the CB and the Organization demonstrate that the management system is the same throughout all facilities in all the countries; and

3) The same e-Stewards CB performs all audits (of the single management system) in all countries covered by the multinational sampling scheme; and

4) The multinational sampling scheme is only applied to surveillance and recertification audits (and not for initial certification of any facility in any country). Processing facilities cannot be added to a multisite certification until an audit has been completed and certification supported.

If performing multinational site sampling, the CB shall ensure:
▶ The Organization within each country is still required and verified by the CB (regardless of multinational sampling) to meet all the country-by-country requirements defined in the e-Stewards Standard, (e.g. to certify all Processing facilities within the country regardless of brand [i.e. Appendix B, section (d)]; and
▶ The CB makes available objective evidence to its accreditation body that all of the applicable requirements of IAF MD 1 have been addressed and documented where required.

g) e-Stewards Audit Reporting Requirements

All CB audit reports shall be in the English language, and in addition to ISO 17021-1 content requirements, shall clearly indicate that each of the following critical principles were covered during all audits (including surveillance audits):

1) Materials of Concern and/or equipment going for reuse are only exported in conformity with the e-Stewards Standard; and

2) Data security is assured for all customers; and

3) Workers are systematically protected from toxic exposures, illness, and injury, and housekeeping and Industrial Hygiene practices minimize migration and take-home exposures; and

4) Safe practices are defined and followed for handling Hazardous Electronic Equipment; and

5) Materials of Concern (including untested equipment and components destined for refurbishment) are identified and followed to acceptable Final Disposition; and

6) Material balance accountings, as calculated by the Organization, are verified and compared to a sampling of corresponding downstream Shipping Records; and

7) The additional required certifications are maintained and valid (e.g., ISO 14001, NAID AAA); and

8) A valid licensing agreement is maintained with e-Stewards Program Administrator.

For critical areas 1 - 8, the auditor shall document how Standard conformity was established by addressing the following:

▶ Which departments were visited and reviewed for this determination?
▶ What records were reviewed, including dates and subject matter?
▶ What observations were made against the Standard and/or documented system requirements?
▶ Which facilities/sites were visited, including any Ancillary Sites, if applicable?

h) Data Collection and Verification
The CB shall collect and/or verify the following data:

1) The CB shall establish the number of personnel (staff and contract) at the application phase, and verify at the initial certification audit and all subsequent audits. This information shall be used to assure proper audit time during the certification cycle; and

2) During and subsequent to certification, the CB shall assure that the use of the e-Stewards logo by the e-Stewards Organization is in accordance with the e-Stewards licensing agreement.

i) Certificate Issuance

The following process must take place (in this order) for every audit, whether initial, surveillance, transition, or recertification audit for each organization:

1) CB shall conclude and confirm that all major and minor nonconformities have been processed in accordance with ISO 17021-1, and all other CB requirements are met; and

2) Prior to issuing e-Stewards Certificates, CB must then notify the e-Stewards Program Administrator (info@e-Stewards.org) for each applicable country (or for multiple countries with multinational sampling) that the client has satisfied all CB requirements; and

3) The e-Stewards program administrator will then enter into (or verify the existence of) an annual license agreement with each Organization for the use of the e-Stewards name and logo. Because license agreements are renewed annually, the CB must confirm a current license agreement with the e-Stewards administrator prior to issuing new, renewal or transition certificates. The CB shall not issue new, renewal, or transition certificates until a current license agreement is executed and CB has received written notification of this from the Program Administrator; and finally; and

4) The CB shall send a copy of every e-Stewards certificate (initial, transition, and renewal, etc.) to the e-Stewards Program Administrator (info@e-Stewards.org) at the same time it is issued to the Organization.

All certificates issued shall bear the mark of the CB, the AB accreditation symbol, and the e-Stewards logo (as provided by the e-Stewards Program Administrator to the CB in conjunction with its Licensing Agreement). Unaccredited e-Stewards Certificates are prohibited.

The CB shall not issue, or shall withdraw or suspend, as appropriate, a certificate to an Organization if the e-Stewards Program Administrator has issued a Critical Non-Conformity to that Organization until and unless the Program Administrator has cleared the Critical Non-Conformity, in writing to the CB.

The e-Stewards certificate issued by the CB may reference concurrent certification with ISO 14001, or the two certificates may be issued separately.

The CB may issue a site or corporate (multisite) certificate(s) indicating conformity of the e-Stewards Organization with all applicable requirements of the Standard.

The CB shall consider the need for issuing new certificates based on Significant Changes or events reported during the certification period. If a Significant Change occurs (see definition and Appendix B, section h) which could affect the certified e-Steward's ongoing capability to operate in conformity with the Standard, the CB shall notify the e-Stewards Program Administrator of the circumstances within 5 business days (see reporting requirement in section (k) and follow the requirements of ISO/IEC 17021-1 with regard to assuring continual conformity with the Standard. In such circumstances, if either the CB or the e-Stewards Program Administrator believes that a special audit should be conducted for any such-affected certified facilities, then such audit shall be required within a maximum of six months of notification or sooner.

When an Organization moves its location to a new facility, it is required to obtain a new certificate for the new site. Prior to the new location being listed as certified on the e-Stewards' and the Organization's websites, a certificate with the

new location's address shall be issued by the CB to the Organization and a copy sent to the e-Stewards Program Administrator at the same time.

j)   Competence, Qualifications, and Ongoing Training of e-Stewards CB and AB Personnel on an ongoing basis

e-Stewards CB audit teams shall have the following competence:

- ► Audit team shall be led by a competent Team Leader in accordance with CB's system requirements; and
- ► Be competent in ISO 14001: lead auditors with at least one-year experience in auditing to 14001; and
- ► Successful completion of refresher/retraining courses of e-Stewards Standard, as available, at least once every three years; and
- ► Successful completion of mandatory:

  - Initial e-Stewards Lead Auditor training, and
  - e-Stewards transition auditor training, following the publication of a full revision of the e-Stewards Standard.

- ► Be competent in e-Stewards published Sanctioned interpretations prior to auditing to them; and
- ► Have demonstrated competency in accordance with ISO/IEC 17021-1 in electrical and electronic equipment and recycling industries; and
- ► Have an understanding of the Basel Convention, including the Annexes.

The e-Stewards CB program managers, technical review personnel, and e-Stewards certification decision-maker shall:

- ► Participate in refresher/retraining e-Stewards courses at least once every three years;
- ► Participate in and successful completion of mandatory trainings:

  - Initial e-Stewards Lead Auditor training; and
  - e-Stewards transition auditor training provided by the e-Steward program following the publication of a full revision of the e-Stewards Standard.

- ► Possess and apply knowledge of the current version of the e-Stewards® program requirements, the current and revised e-Stewards Standards and Sanctioned Interpretations, the environmental management system requirements of ISO 14001, and recycling and electronics recycling in particular; and
- ► Possess and apply the skills necessary to provide effective management of the CB's program and discuss at a technical level any questions the CB's clients might have specific to this program.

AB assessors and program managers shall successfully complete mandatory:

- ► Initial e-Stewards Lead Auditor training; and
- ► e-Stewards transition auditor training provided by the e-Steward program following the publication of a full revision of the e-Stewards Standard.

k)   Agreement to Oversight of the Certification Process & CB/AB Reporting Requirements
The AB and CB shall agree to a reasonable level of oversight by the e-Stewards Program Administrator. This oversight may include:

- ► Witnessing of the initial CB accreditation office audit and witnessed audits; and
- ► Review of AB and CB documents and procedures related to the e-Stewards program; and
- ► Witnessing of CB audits of e-Stewards applicants and/or certified e-Stewards; and

- ▶ CB office assessments; and
- ▶ Review or witnessing of other AB or CB events that the Program Administrator considers to be relevant to its oversight of the e-Stewards program.

To facilitate this oversight, CBs and ABs shall submit the following information to the e-Stewards Program Administrator at info@e-Stewards.org, at the frequencies indicated below.

1) CB reporting requirements

Monthly: CBs shall submit a written report by the 7th day of every month, using "CBs e-Stewards Monthly Report" form, providing the e-Stewards Program Administrator with the following information:

CB Monthly Reporting (due by the 7th day of subsequent month)
1) New e-Stewards quotations issued since the last monthly report (company name)
2) New contracts signed with candidate Organizations since the last report, including company name & location
3) New Processing facilities contracted with current certified Organizations (including full address)

4) Confirmed e-Stewards audits (initial, surveillance, special, or renewal) scheduled within the next 90 days from the current report, including:
  ▶ Facilities/locations to be audited; and
  ▶ Audit type; and
  ▶ Specific auditors assigned to perform audits.

5) New e-Stewards certificates issued since the last monthly report. NOTE: The CB shall also report each new e-Stewards certification to the Program Administrator within 5 business days of certification (see next table)
6) All certificates suspended or withdrawn since the last monthly report. NOTE: Any changes to certification status (e.g. suspension, withdrawal, cancellation) shall also be reported to the e-Stewards Program Administrator within 5 business days (see next table).
7) ANAB witnessed audits, past month and within the next 90 days

Within 5 business days: CB shall submit written notification to e-Stewards Program Administrator of the following occurrences within 5 business days of their occurrence (or as indicated):

CB Reporting Changes in Status of Certifications and other Significant Changes at Clients
1) New e-Stewards certificate issued NOTE: A copy of every e-Stewards certificate issued shall be sent to info@e-Stewards.org at the time it is issued to the Organization.
2) Suspension of certified Organization, include company name, processing facility location(s), date of suspension, and the number of days given to clear all non-conformity(s). NOTE: If the suspension of one facility is not lifted within the deadline set by the CB, certificates for all of a multi-sited Organization's facilities must also be suspended. Please contact e-Stewards Program Administrator to discuss specifics as needed.
3) Withdrawal of certified Organization's certificate
4) Cancellation of Organization's contract for certification
5) New ownership of a certified e-Stewards Organization
6) New location (move) of Processing facility or Ancillary Site of an e-Stewards certified Organization

7) Other Significant Changes or any event which could affect the certified e-Steward's ongoing capability to operate in conformity with the Standard (see definition, last paragraph of section (i), and <u>Appendix B</u>, section (h)

CB Reporting Changes in Status of their own Accreditations
▶ The CB has had its accreditation discontinued or withdrawn by an approved AB for nonconformity with e-Stewards requirements, or ISO 14001, or another industry-specific standard.

2) AB reporting requirements

Accreditation Bodies shall report the following to e-Stewards Program Administrator, in the time frames indicated:

AB Monthly Reporting
The schedule for any of the following events planned in the upcoming 90 days: ▶ Any e-Stewards applicant CB audits;   ▶ Current e-Stewards CB office visits;   ▶ Confirmed CB witnessed audits, including dates, locations, and CBs to be witnessed;   ▶ Completed CB transition accreditation to the latest version of the e-Stewards Standard.

AB Reporting within 1 Business Day
▶ Notification of any e-Stewards CB that has had its accreditation suspended or withdrawn for nonconformity with e-Stewards requirements or ISO 14001 or another industry-specific standard.

APPENDIX D: DATA SECURITY

8.9 Data security

This section is only to be used by, and is then is binding on, Organizations that have not yet been Certified to NAID AAA and all NAID endorsements for data security applicable to their facilities. As of July 1, 2022, all Organizations will be NAID AAA Certified and this section will sunset.

a) The Organization shall ensure that all applicable laws, including the general Data Protection Regulation (of the European Union) and similar legislation in other parts of the world, are obeyed.

b) The Organization shall establish a "first-touch policy" to immediately lock-down and secure all equipment unless it is known not to contain Customer Data on data-bearing components or other forms of documentation or records in accordance with the requirements of this standard noted below, prior to doing anything else with the equipment, including inventory, record-keeping, or any form of handling or processing.

c) The Organization shall establish, implement, and maintain the processes necessary to provide data security services for applicable EE under their Control, and shall retain responsibility for preventing unauthorized access to or release of any Customer Data, regardless of whether data-bearing devices are going for Direct Reuse, Materials Recovery, or Final Disposal.

8.9.1 Establish and communicate data security risks and obligations

The Organization shall inform customers of data security risks and provide customers with written communication regarding the Organization's explicit role, service obligations and agreements, and customer indemnifications, if any, regarding the data security services that are and/or are not provided.

Where data sanitization services are provided, this communication shall include:

a) Types of assets and other material being sanitized; and
b) Methods used for sanitization; and
c) Confirmation of any additional information beyond Customer Data for which the customer has requested sanitization (asset tags, etc.); and
d) Data security standard(s) achieved in sanitizing Customer Data.

8.9.2 Ensure physical and electronic security

Develop, document, implement, and maintain the processes necessary for physically securing data-bearing devices and data processing systems used in the delivery of data security services, as well as for physically and electronically protecting all Customer Data throughout the chain of custody until it is sanitized or returned to the customer, regardless of Final Disposition.

These processes shall:

a) Identify the data-bearing characteristics of the asset types for which the organization provides services; and
b) Establish and document a clearly defined chain of custody for devices containing or possibly containing Customer Data that:

1) Stipulates when and where the transfer of custody to the organization begins and ends for Customer Data; and
2) Provides secure logistics, including the transport of data-bearing devices to the organization's facility(s), between the Organization's facilities, and/or to the End Provider(s), and maintains effective physical and electronic controls throughout the transport and transfer processes; and

3) Ensures that any locations where customer assets may be temporarily stored during the Organization's transport & transfer processes operate to meet the requirements defined in c) below;

c) Provide effective controls to physically and electronically secure facilities and equipment in order to:

1) Ensure that only authorized personnel are permitted access to areas where Customer Data is stored and where data security services are performed; and
2) Isolate areas where data security services are performed from locations where unauthorized personnel can enter the property, such as loading and unloading areas; and
3) Prevent data from being electronically accessible, even if physically controlled; and
4) Restrict or control entry and exit of authorized guests in secure areas, as appropriate.

d) Implement controls to mitigate data security risks associated with workers, including but not limited to background verification checks on all workers and temporary service providers who are involved in the delivery of data security services; and

e) Effectively track all data storage devices and sanitization activities performed on them, including:

1) Clear identification of all equipment and components that require data security services, either by using a manufacturer-designated serial number or assigning a unique number for each device or by designating secure accumulation areas for non-serialized data storage devices; and
2) Documentation of physical location and data security status throughout the chain of custody; and
3) Implementation of handling processes to ensure inventory integrity until data sanitization is complete, to prevent access to accumulated media, and to track accumulation containers' physical locations until Customer Data is sanitized; and
4) Provision of inventory-tracking information to customers regarding their data storage devices and sanitization status, and facilitation of customer requests to audit the status of their Customer Data and data storage devices throughout the organization's chain of custody.

8.9.3   Sanitize all Customer Data

Unless otherwise requested by the customer in writing, effectively sanitize all Customer Data prior to its departure from the organization's Control by conforming, at a minimum, to either a published national standard for data security in the country or region where services are being delivered or the current version of NIST Special Publication 800-88 Guidelines for Media Sanitization, whichever is more stringent.

The Organization shall ensure all devices sold or donated for Direct Reuse have been sanitized of Customer Data and that paper and other media containing Customer Data are removed from equipment and components or rendered permanently and completely illegible, including from internal paper pathways of imaging equipment.

Organizations and/or their IDPs may sanitize data storage devices in a mobile environment, such as in a vehicle designed to provide data sanitization and destruction, if:

a) The vehicle, its equipment, and processes meet e-Stewards requirements for data security and protect human health and the environment; and
b) Workers are trained to perform mobile data sanitization in conformity with this Standard.

8.9.4   Verify successful sanitization of customer data

The organization shall verify successful sanitization of all Customer Data, whether clearing, purging, or destroying data storage devices, including:

a) For all data storage devices going for reuse, verify that prescribed overwrite instructions have been successfully executed for 100% of a device's physical memory locations; and/or
b) For all data storage devices going for destruction (including Materials Recovery and/or Final Disposal), verify physical destruction processes are completed via validation of process; and
c) Retain verification records of successful sanitization for each serialized device and/or for each container of non-serialized data storage devices. Failed sanitization shall also be logged; and
d) Provide verification information to customers for their data storage devices upon their request, except as contractually stipulated, and permit customers to audit data destruction verification and logging processes.

The Organization shall ensure that data storage devices are physically destroyed if the data sanitization requirements of section 8.9 cannot be met.

8.9.5   Establish a program for data security breaches and incidents

Develop, document, implement, and maintain the processes necessary to prevent, detect, and respond effectively and quickly to suspected and actual data security incidents, including, as applicable:

a) Notification of relevant authorities and impacted customer(s) in a timely manner; and
b) Collection and retention of evidence from the time a security breach is initially detected throughout its investigation, and presentation of those records in conformity with the rules of evidence in the relevant jurisdiction(s), if the security breach involves legal action, whether civil or criminal.