



E-WASTE CERTIFICATIONS + BATTERY RECYCLING

HOW E-WASTE INDUSTRY CERTIFICATIONS HELP ASSURE SAFE PRACTICES FOR
HANDLING AND DISPOSING OF BATTERIES AND WHY YOU SHOULD MAKE SURE
YOU ARE USING A CERTIFIED RECYCLER TO HANDLE THESE MATERIALS

COMMON TYPES OF E-WASTE CERTIFICATIONS



R2V3

- SUSTAINABLE ELECTRONICS RECYCLING INTERNATIONAL (SERI)
- MISSION STATEMENT:
 - **SERI works to create a world where electronic products are reused and recycled in a way that results in resource preservation, the well-being of the environment, and the health and safety of workers and communities.**



E-STEWARDS

- BASEL ACTION NETWORK (BAN)
- MISSION STATEMENT:
 - **The e-Stewards initiative defines and promotes responsible electronics reuse and recycling best practices worldwide.**



KEY COMPONENTS OF BOTH CERTIFICATIONS



- Focus on prioritizing re-use of electronics first, while standardizing requirements for testing and evaluation procedures
- Provides chain of custody tracking throughout the entire downstream network all the way to the final end-of-life processing steps
- Worldwide organizations, to provide globally standardized procedures and regulations, regardless of different country's regulations
- Both are multi-stake-holder, collaborative organizations where members are constantly evaluating each other to weed out bad actors



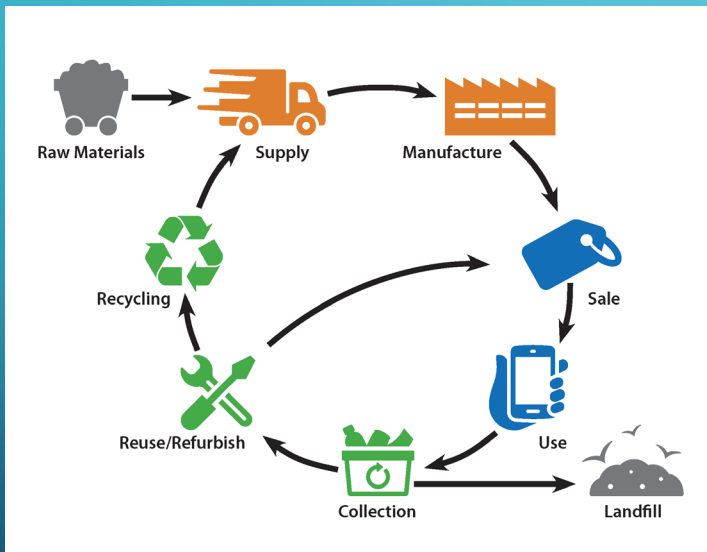
ISO CERTIFICATIONS AS A QEHS MANAGEMENT SYSTEM



- ISO 9001: 2015 – Quality Management System
 - Consistently provide products and services that meet customer and regulatory requirements.
- ISO 14001: 2015 – Environmental Management System
 - Improve their environmental performance through more efficient use of resources and reduction of waste, gaining a competitive advantage and the trust of stakeholders
- ISO 45001: 2018 – Occupational Health & Safety Management System
 - Improve employee morale and retention, reduce accidents and injuries, improve compliance with regulatory requirements, and lead to improved customer satisfaction.



HOW DO THE CERTIFICATIONS ADDRESS BATTERIES?



- Defining batteries as Universal Waste, Focus Materials or Hazardous Waste regardless of local regulations
- Require written policies and procedures for safely handling, packaging and transporting batteries of all chemistries, with a focus on preventing environmental impacts as well as minimizing health and safety risks
- Requires specific testing thresholds to determine if a battery can re-used

RISKS OF IMPROPER BATTERY HANDLING & DISPOSAL

- Fires
 - Lithium swelling/puncture
 - Sparks from terminal contact
- Spills
- Corrosion
- Environmental Contamination



BEST PRACTICES FROM CERTIFICATIONS THAT SHOULD BE USED BY EVERYONE

- Proper storage of used batteries
- Understanding of risks associated with batteries
- Incorporating into company's safety programs and training



WHY YOU SHOULD ONLY USE CERTIFIED VENDORS TO DISPOSE OF BATTERIES

BENEFITS

- Transparency
- Transfer of Liability
- Safety Knowledge and Expertise
- Promoting Circular Economy and Environmental Sustainability

CHALLENGES

- Costs
- Individuals lack easy access to certified recyclers that are open to the public
- Proper Handling and Storage



THANK YOU FOR YOUR TIME!

TO LEARN MORE ABOUT US, PLEASE
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ELECTRONICS RECYCLING & IT ASSET DISPOSITION



Responsible[™]
Recycling