

E-waste Recycling and Refurbishing: Environmentally Sound Management Practices

Results from the CEC workshop
and upcoming e-waste work



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Outline

- **Background**
- **Environmentally-sound Management**
- **Scope**
- **Results of the workshop**
- **Challenges and Opportunities**
- **Future work with SMEs**

Background

- Increase in world production of electronic products
- Complexity in the international flows of e-wastes
- International concern for e-waste management and recycling

Background

- **Trilateral action in the CEC on e-wastes**
 - Clean Electronics Pollution Prevention Partnership started in 2004.
 - Initiatives addressing electronic wastes started in 2007.
 - Different ways to contribute to more effective enforcement at the domestic level in NA have been sought.
 - The Enforcement Working Group & the Electronic Waste Experts Working Group have implemented projects related to e-wastes, such as:
 - **Environmental Sound Management within Small and Medium Enterprises for e-wastes recycling and refurbishing**

Environmental Sound Management

- **What is ESM? Taking steps to ensure that used and/or end-of-life products or wastes are managed in a manner that will protect human health and the environment**

- **Benefits of ESM to facilities:**
 - Reduction of risk to environment and public health
 - Economic benefits of increased plant efficiency
 - Trade benefits
 - Due diligence or duty of care
 - Improved safety
 - Improved relationships with regulators and public
 - Improved business relationships
 - Protection of stockholder and stakeholder interests

ESM Criteria for facilities

1. Top Management Commitment to a Systematic Approach
2. Risk Assessment
3. Risk Prevention and Minimization
4. Legal Requirements
5. Awareness, Competency and Training
6. Record-keeping and Performance Measurement
7. Corrective Action
8. Transparency and Verification



- **Workshop on E-Waste Recycling and Refurbishing: Environmentally Sound Management Practices**

- **15–16 February 2011 in Guadalajara, Mexico**
- **<http://www.cec.org/ewaste2011>**

Scope

- The workshop was designed to address the problem of e-waste recycling practices and highlight the benefits of the adoption of ESM practices by SMEs in North America.
- It also served to identify opportunities that would bolster the e-waste recycling and refurbishing industry in Mexico.

Structure of the workshop

Session #1: Human Health and Environmental Impacts, and Common Mismanagement of Electronic Waste

Session #2: Multilateral ESM Provisions for Electronic Waste

Session #3: Voluntary ESM Approaches for Refurbishing and Recycling Used and Waste Electronics

Session #4: The Benefits of ESM

Session #5: How to Integrate ESM at Facilities

Session #6: Overcoming Challenges Faced by SMEs

Participants

• Mexican Enterprises	35
• US Enterprises	3
• Canadian Enterprises	4
• Government Representatives (21 MX, 4 US, 4 CAN)	29
• NGOs	7
• Academics	11
• CEC Personnel	7
• Consultants (CADMUS Group)	2
• TOTAL	98

- 300 more via webcast



Challenges and Opportunities (Participant Remarks)

What ESM practices are the easiest to implement?

- Identify local regulation
- State commitment and mission statement
- Identify your clients and scope of services
- Create a business plan
- Partnerships - Information exchange and strategic alliances
- Arrange transportation of materials
- Constant training (internal and external)
- Develop practices that will reduce residues and emissions

Challenges and Opportunities (Participant Remarks)

What aspects of ESM practices do you find to be the hardest to implement?

- Maintain high standards on a day-to-day basis
- Meet all legal requirements
- Maintain a quality, environmental, health & safety system
- Certifications
- Drive culture change in people
- Audits
- Overcome the lack of infrastructure
- Dependability of legal requirements

Challenges and Opportunities (Participant Remarks)

What assistance, other than financial, do you need to implement ESM practices?

- Harmonize regulation in the three levels of government
- Creation of a transparent registry of North American recycling and refurbishing operators that meet international standards
- Assistance to transfer knowledge and best business practices
- Assistance to SMEs to receive training for capacity building
- Create programs that result in faster growth of the e-waste recycling and refurbishing industry



Future work with SMEs

Promote the adoption of ESM practices in small and medium-size enterprises (SMEs), specifically e-waste recyclers and refurbishers in North America

Future work with SMEs

1. Conduct a training needs assessment: Survey SMEs in e-recycling and e-refurbishing sectors in NA
2. Develop training content for use in training courses
3. Deliver training courses based on ESM
4. Develop a website to more widely disseminate ESM materials and training course content

**¡Gracias!
Merci !
Thank you!**



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