

Asia NT Workshop 2011
for Prevention of Illegal Transboundary
Movement of Hazardous Wastes

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Basel Convention PACE Guidance for Environmentally Sound Management (Facility-level ESM Recommendations)

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Outline



1. Overview of PACE
2. Introduce PACE ESM Criteria Recommendations
3. Review key concepts

Overview of Basel PACE

PACE is a global partnership



- Multi-stakeholder partnership forum
- Addresses environmentally sound management, refurbishment, recycling & disposal of used and end-of-life computing equipment
- Part of the work under the *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*
 - 176 Parties to the Convention
 - PACE launched in June 2008
(9th Conference of Parties: Bali, Indonesia)
 - Parties approved PACE guidance* in December 2010
(10th Conference of Parties: Cartagena, Colombia)

* Guidance pertaining to transboundary movement is provisionally approved

PACE targets used & end-of-life computing equipment



- Computing equipment generally includes:
 - Personal computers (desktop & laptop)
 - Monitors
 - Peripherals (keyboards, mouse, cables)
 - Printers & scanners



Many partners contribute to the work of PACE

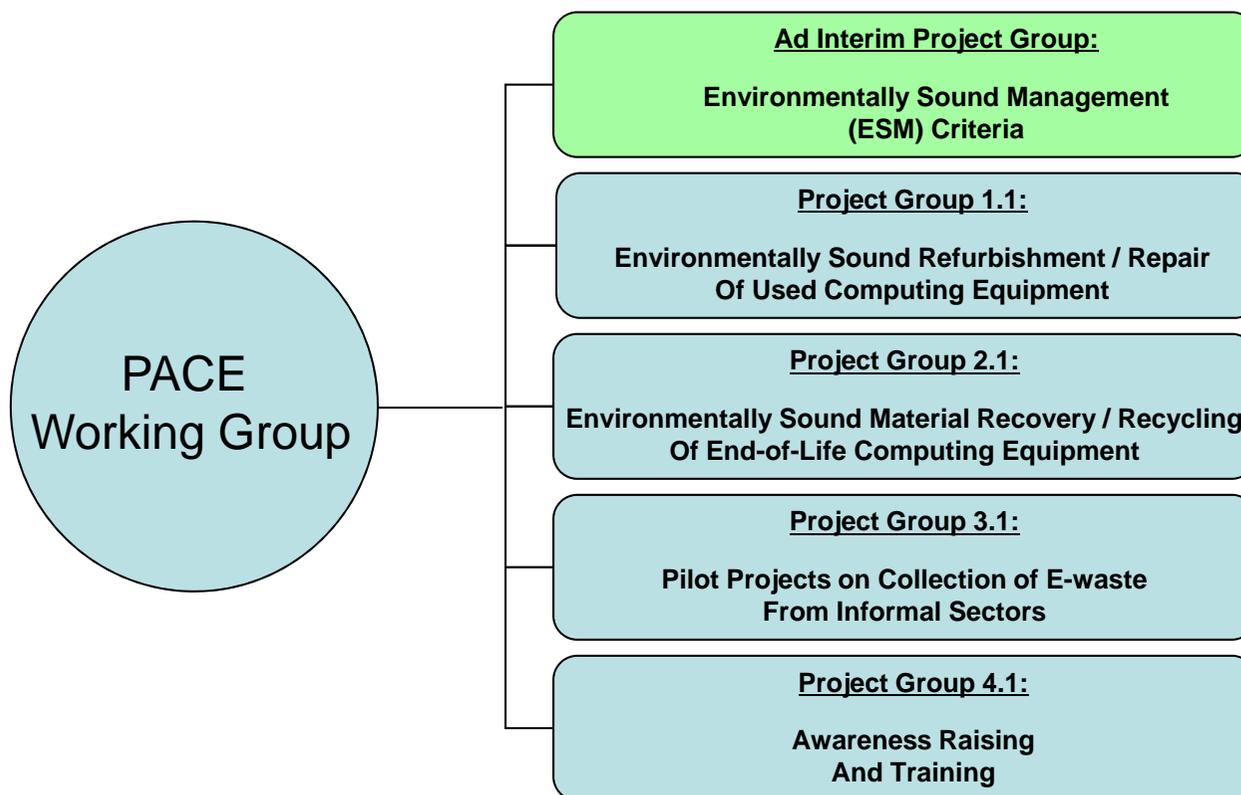


- Personal computer manufacturers
- Refurbishers & recyclers
- Industry associations
- Research & academic institutions
- Environmental groups
- Country governments
- Basel Convention Regional Centres
- Other international organizations

Some of the talented and committed partners behind PACE...



PACE is structured into several groups



PACE delivers tangible deliverables & outcomes



- Guidance & technical guidelines:
 - *Guidance Document on the Environmentally Sound Management of Used and End-of-Life Computing Equipment*
 - *ESM criteria recommendations*
 - *Guideline on Environmentally Sound Testing, Refurbishment, and Repair of Used Computing Equipment*
 - *Guideline on Environmentally Sound Material Recovery and Recycling of End-of-Life Computing Equipment*
 - *Guidance on Transboundary Movement (TBM) of Used and End-of-Life Computing Equipment*
- Awareness-raising & training tools (e.g. logo, film, leaflets, workshops)
- Pilot projects (e.g. Jordan)
- More (i.e. ongoing work programme for 2012-2013)

Guidance:

Environmentally Sound Management (ESM) Criteria Recommendations

Please visit the official PACE website to
obtain the complete text of this document for review.

It is available at: <http://basel.int/industry/compartnership>

This guidance serves as a strong foundation for ESM



- The overarching purpose of this guidance is two-fold:
 - To recommend ESM criteria for use by PACE in devising related guidance & pilot projects
 - To serve as an information resource for general guidance on ESM for use by country governments & facilities

ESM criteria recommendations acknowledge existing guidance



- Modelled after existing & relevant guidance to the fullest extent possible to avoid duplication & support compatibility with existing approaches
- Compatible with ESM criteria & “core performance elements” under the work of the Basel Convention & OECD
- Recommendations are mainly geared toward facility improvements:
 - Most PACE activities tend to focus on facility operations
 - Existing guidance appears to vary on a case-by-case basis
 - Opportunities exist to ensure a more coordinated & consistent approach
 - Useful to governments in understanding what is necessary to support facility-specific ESM criteria & best practices from a national context

ESM should stimulate improvement (versus judgement)



- ESM capacity varies greatly from country to country, often dependent upon political, social & economic considerations
- Facilities do not carry out ESM in isolation
- Effective legal systems and infrastructure to protect workers, communities & environment are complementary to achieving ESM
- ESM may not be readily available in some countries & facilities if effective systems & infrastructure are absent
- Guidance includes recommendations for national governments, which recap pre-existing & pre-approved recommendations under the work of the Basel Convention & OECD

ESM criteria help to protect human health & the environment



- ESM criteria refer to characteristics, attributes or traits deemed important to achieve environmentally sound management
- ESM can be defined as:
 - *Taking all practical steps to ensure that used and/or end-of-life products & wastes are managed in a manner which will protect human health & the environment*

ESM criteria recommendations are organized into 3 categories



1. Country-specific recommendations
2. Facility-specific recommendations
3. Other considerations when planning to undertake work pertaining to the management of used & end-of-life computing equipment

Country-specific recommendations

Country-specific recommendations



- Review measures in place to implement relevant obligations under the Basel Convention & OECD
- Consider flexibility to allow for specifically tailored Environmental Management Systems (EMS) in small & medium-sized enterprises & support them in terms of information & know-how sharing
- Domestic policies & programmes should be implemented in accordance with Basel PACE technical guidance to help meet applicable international agreements & protocols & domestic legal requirements

Facility-specific recommendations

Facility-specific recommendations



- Facilities should ensure measures are in place to demonstrate conformity with the following ESM criteria:
 1. Top management commitment to a systematic approach
 2. Risk assessment
 3. Risk prevention & minimization
 4. Legal requirements
 5. Awareness, competency & training
 6. Record-keeping & performance measurement
 7. Corrective action
 8. Transparency & verification

1

Top management commitment to a systematic approach



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Integrate a systematic approach to achieve ESM in all aspects of facility operations, which often includes an environmental health & safety management system

- Necessary to ensure that appropriate policies, programmes, resources & other facility measures are in place
- A systematic approach refers to developing and implementing plans, monitoring results, reviewing effectiveness & taking corrective action where necessary to support continual improvement
- Environmental management systems (EMS) are often used to support a systematic approach



2



Risk assessment



Identify actual and potential hazards and risks to public and worker health and safety, and the environment that are associated with activities, products and services

- Must identify risks before they can be addressed
- Consider both normal and abnormal operating conditions:
 - facility start-up & shut-down routines
 - emergency situations & accidents
 - facility emissions & releases
 - equipment use
 - repair & maintenance
 - material & waste handling

Risk prevention & minimization

Eliminate where possible and strive to minimize actual and potential hazards and risks to public and worker health and safety, and the environment that are associated with products, activities and services

- Most accidents in the workplace are preventable and often occur because risks are not identified, or ignored or underestimated
- Risks have many dimensions (health, safety, environment, financial, community trust, etc.) & the importance of each may vary amongst interested parties (workers, investors, clients, regulators, public, etc.)
- Financial guarantees should be in place to ensure a means of adequate financial compensation or resourcing to respond to damages, losses, or injuries



4



Legal requirements



Identify, access and strive to fulfill applicable legal requirements such as legislation, statutes and regulations; decrees and directives; permits, licenses and certificates of approval, or other forms of authorization; orders issued by regulatory agencies; and judgements of courts or administrative tribunals. Customary or indigenous law and treaties, conventions and protocols should be taken into consideration.

- Legal compliance is a prerequisite for bona-fide companies
- Non-compliance can be very costly to an organization
- Working with legally compliant suppliers & service providers forges strong business relationships & reputations that are beyond reproach
- Can present a particular challenge to informal sector operations

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Awareness, competency & training



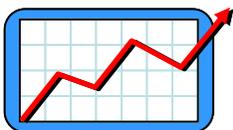
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Ensure employees have an appropriate level of awareness, competency & training with respect to the effective management of occupational risks

- Employees must be aware of risks at the workplace, properly trained & competent to contribute to the protection of public & worker health & safety, & the environment through their activities
- Includes the ability to identify, prevent & minimize hazards & risks, & effectively respond to emergency situations



6



Record-keeping & performance measurement



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Maintain records, monitor, track and evaluate facility performance at achieving ESM

- *Enables an organization to make informed decisions regarding whether programmes, investments, & acquisitions are achieving desired results or if it is necessary to implement correction actions*
- *Record-keeping & performance measurement may also be identified as a legal obligation or used to demonstrate facility compliance with legal requirements*



7



Corrective action



Take appropriate action to address significant actual and potential risks to public and worker health and safety, and the environment and correct identified deficiencies in achieving ESM

- Intended to remedy any weaknesses that are identified
- Ensures that ESM approaches undergo continual improvement

Transparency & verification

Integrate provisions to support transparency and verification throughout each ESM criterion, subject to appropriate protection for confidential business information.

- Provides public assurances that operations & activities are compatible with ESM criteria
- Provisions may include participating in third party audits & inspections



Other facility-specific recommendations



- Facilities should review measures to support:
 - Basel Convention guidance document on the preparation of technical guidelines for the ESM of wastes subject to the Basel Convention
 - PACE guidance and technical guidelines & other applicable guidance under the Basel Convention
- Facilities in OECD countries should also review measures to support:
 - *OECD Council Recommendation C(2004)100 on the ESM of waste*
 - *OECD technical guidance on the ESM of specific waste streams: used and personal computers (ENV/EPOC/WPWPR(2001)3/FINAL)*

ESM can benefit facilities in many ways



1. Reduced risks to the environment & public health
2. Economic benefits of increased plant efficiency
3. Trade benefits
4. Due diligence / duty of care
5. Improved safety
6. Improved relationships with regulators & the public
7. Improved business relationships
8. Protection of stockholder & stakeholder interests

Other considerations when planning to undertake work pertaining to the management of used & end-of-life computing equipment

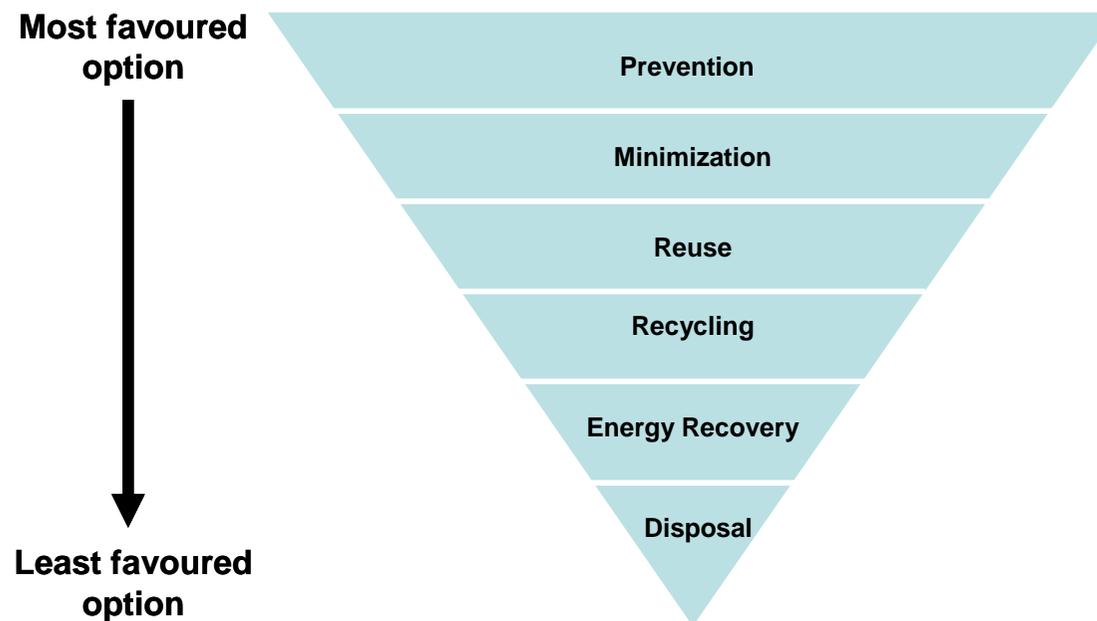
“Other considerations”



- All ESM criteria recommendations should be taken into account
- Differences between hazardous and non-hazardous wastes and between dangerous & non-dangerous processes should be taken into account
- Refurbishing and recycling activities should not be discouraged, recognizing that flexibility is required in each country to increase the rate of environmentally sound recovery of low-risk waste
- Facility measures and specific actions should be identified, including any appropriate measures to verify conformity with ESM criteria

“Other considerations” (continued...)

- A waste management hierarchy should be considered when developing technical guidance documents & pilot project



“Other considerations” (continued...)



- Identify realistic options & potential resources to help informal sector operations transition into the formal sector
- Identify self-sustainable and economically viable solutions to support long-term implementation of pilot project activities
- Establish incentives & relief measures for facilities to support PACE technical guidance
- Consider the development of “tiered checklists” which will help facilities to identify what types of measures they should have in place to graduate from lower to higher tiers of ESM

“Other considerations” (continued...)



- Technical guidance & pilot projects should take into account the size of an enterprise, the type & amount of waste, the nature of operations & domestic legislation
- Procedures for achieving certification / registration & reporting requirements may be simplified for small & medium-sized enterprises (SMEs) compared to large facilities
 - Simplification should not compromise suitable & effective protection of public & worker health & safety or the environment
 - Simplification should not include less complicated or fewer facility audits
- SMEs with operations that present little or no risk need significantly more limited emergency plans

Reviewing key concepts



- ESM involves introducing measures to protect human health & the environment
 - Facility best management practices, pollution prevention & control
 - Incentives where appropriate to facilitate & support this transformation
 - Comprehensive & effective regulatory framework (including compliance promotion & enforcement)
- ESM requires commitment, careful planning & takes time to fully achieve
- PACE guidance is supported by the international community
- PACE guidance & recommendations should be considered & implemented as soon as it is practical to do so
- Conformity with ESM provisions will enhance the ability of countries & businesses to remain competitive in the global marketplace

Visit the PACE website for details



<http://basel.int/industry/compartnership>