

**Workshop on Building National Capacity in Rapidly Industrializing
Countries on Sustainable Management of Recoverable
Material/Resources**

Bangkok, 20-22 September 2001

Background Document

Session 2

Friday, 21 September 2001

**Implementing and Assuring a
Practical Approach for the
Environmentally Sound
Management of Hazardous Metal
Recyclables**

WORKING PAPER

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Metals and the Environment by:*

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February 2001



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FOREWORD

The mandate of the International Council on Metals and the Environment (ICME) is to promote sustainable development policies and practices related to the mining and production of primary metals, which will ensure the safe production, use, recycling and disposal of metals.

Consistent with its mandate, and with its Sustainable Development Charter, ICME initiated a project to develop an operational framework for the Environmentally Sound Management (ESM) of hazardous metal recyclables covered under the Basel Convention.

ICME sought proposals for this project from independent experts and selected the Global Environmental and Technology Foundation (GETF) to carry out the work. GETF is a not-for-profit organization that promotes sustainable development through technology and environmental management systems.

The present document, published by ICME as a working paper, is a proposed approach to integrate ESM into the implementation of the Basel Convention. The proposal would require that a number of steps be taken by a variety of stakeholders, including the Basel Parties, national governments, industry and international organizations, in order to ensure that recycling facilities meet ESM requirements. The key approach is to use an internationally recognized environment management system, such as ISO 14041, and to augment it with third-party assurance that a facility meets the level of performance required by the Basel-related ESM programs of national governments.

Industry is ultimately accountable to society for the way it conducts its activities. One of the means to help achieve this accountability is the use of public reports on progress relating to economic, environmental and social performance. The proposal therefore provides for transparency at all levels, including the public posting of independent third-party evaluations of the performance attained by recycling facilities in implementing the ESM objectives of the Basel Convention.

The transboundary movement of metal recyclables, including hazardous ones, is an integral part of the sound life-cycle management of materials used in products, in this case metals. Efficient and effective economic and environmental management requires timely and predictable trade. This is best achieved if trade is conducted within a framework that is consistent with international trade rules. With this in mind, ICME invited an independent trade expert to review the proposed approach. The results of this review, a summary of which is provided in Appendix II, show the proposal to be WTO-consistent.

ICME is pleased to contribute material that may assist the Parties to the Basel Convention in their consideration of ESM.

Gary Nash
Secretary General
ICME

ACKNOWLEDGMENTS

The Global Environment & Technology Foundation wishes to thank Mr. Joe Cascio, Chairman of the U.S. Technical Advisory Group to the International Organization for Standardization, and the principals of Clay Associates, Inc. for their substantial contributions to the development of this paper.

ABOUT THE AUTHORS

The Global Environment & Technology Foundation (GETF) is a not-for-profit organization based in Annandale, Virginia, U.S.A., that promotes sustainable development through technology and environmental management systems. Since 1988, GETF has provided public and private organizations with the expertise and tools they need to practice proactive environmental management. GETF partners include communities, governments and industries seeking sustainable alternatives. The Foundation often serves as a neutral third party bringing together diverse interests for a common cause.

Mr. Joseph Cascio is chairman of the U.S. Technical Advisory Group on the ISO 14000 series of standards, a position he has held since 1991. In this role, he has also served as the lead U.S. negotiator on the international technical committee of ISO that developed the ISO 14000 standards. The U.S. Technical Advisory Group is a multi-stakeholder committee of some 400 individuals representing nearly as many organizations from the public, private and public-interest sectors. It is responsible for representing U.S. interests in the ISO 14000 series of standards. Mr. Cascio is a Vice President with International Resources Group, Ltd. in Washington, D.C.

Clay Associates, Inc. (CAI), based in Washington, D.C., was established in 1993 (as Don Clay Associates) to provide strategic advice on predicting and responding to U.S. federal and state environmental activities. CAI also operates the Resource Conservation and Recovery Act (RCRA) Policy Forum. The firm's principals — Marianne Horinko, Jeff Denit and Matt Straus — were long-time employees of the U.S. Environmental Protection Agency and have extensive experience and knowledge in developing and implementing such programs as RCRA hazardous waste, Superfund Cleanup, and the Effluent Guidelines for Industrial Wastewater. The firm's principals were also involved in the initial negotiations of the Basel Convention.

EXECUTIVE SUMMARY

The Basel Convention on the Transboundary Movement of Hazardous Wastes requires that wastes defined as hazardous under the Convention, including metal recyclables, be managed in an “environmentally sound manner.” Over the years, the Basel Parties have worked to reach a general consensus on the essential elements that define “environmentally sound management” (ESM). However, no mechanism exists to implement this consensus. This paper proposes a conceptual approach for implementation that would assure the ESM of materials destined for recycling and classified as hazardous wastes under the Convention.

The International Council on Metals and the Environment (ICME) asked the Global Environment & Technology Foundation (GETF) to develop an implementation strategy that would:

- meet all Convention requirements,
- provide sufficient information and transparency to promote and confirm the existence of ESM, and
- include trade features that industry can easily use and that are consistent with existing international trade rules.

Additionally, ICME wanted it clearly stated that such a system would not affect the sovereign right of any nation to refuse to import any waste for recycling.

The proposed approach builds on both the ESM background of the Convention and an internationally recognized environmental management system. The example used for the environmental management system was developed by the International Organization for Standardization (ISO). The specific proposal is structured as follows:

- The Basel Parties would confirm the general consensus list of elements of ESM. They would then work in partnership with ISO to develop a new ISO 14000 series standard that uses the existing ISO 14001 as a starting point. It would also contain those elements of ESM identified by the Parties that are not already in ISO 14001, as well as some additional criteria, such as the facility’s substantial compliance with applicable laws and regulations, and reporting and disclosure.
- Each country’s national government would then be asked to ensure that the ESM elements identified by the Basel Parties are provided for in its laws or regulations. A register of national governments implementing such requirements would be posted for public review.
- To be internationally recognized as practicing ESM, a recycling facility would have to comply with the new ISO system standard, as well as the requirements of the applicable national ESM program. The facility would be audited by an ISO registrar. If found to be in substantial compliance, it would be eligible for certification as ESM-compliant by its national government and allowed to trade in approved hazardous recyclables, provided that the other Convention requirements are also met. The name of the facility and information on its compliance with the national ESM program would also be posted for public review.

The proposed approach has a number of benefits including, but not limited to, upgraded facility practices; upgraded global levels of environmental and health protection; public trust through ISO-accredited independent verification; improved handling of local recyclables; proper stewardship of valuable materials and conservation of natural resources; and the avoidance of uncontrolled disposal.

The proposed approach provides a transparent means of assuring that a facility practises ESM of recyclables. The proposal builds upon the previous work of the Basel Parties and ISO and should be readily implemented with the cooperation of all involved.

I. OBJECTIVES OF THIS PAPER

The primary objective of this paper is to propose a systematic approach that can assure the environmentally sound management (ESM) of materials destined for recycling and classified as hazardous wastes under the Basel Convention. The proposed approach would facilitate permitted trade under the Convention through the assurance of ESM in the importing country, the exporting country and any transit countries.

II. THE BASEL CONVENTION AND “ENVIRONMENTALLY SOUND MANAGEMENT”

The United Nations Basel Convention on the Transboundary Movement of Hazardous Waste is an international agreement that regulates the international shipment and management of certain wastes. In particular, the Convention identifies a list of hazardous and other wastes that are controlled when they are shipped from the jurisdiction of one country and transported to or through the jurisdiction of another country for disposal or recycling. The Convention also provides that wastes considered hazardous by the exporting country, the importing country and any transit countries are also controlled under the Convention.¹ The Convention was signed in 1989 and entered into force in May 1992.

An essential provision of the Basel Convention is the requirement for ESM of wastes. The Convention defines ESM in Article 2.8 as “taking all practical steps to ensure that hazardous wastes ... are managed in a manner, which will protect human health and the environment against adverse effects which may result from such wastes.” This requirement is central to many of the others in the Convention, including the requirement that prevents the export or import of “such wastes” by any Party if there is “reason to believe” that they will not be managed in an environmentally sound manner.

The Basel Parties have provided significant guidance on the requirements of ESM. Some of the notable contributions are:²

- Group of Experts. Prior to the Basel Convention’s entering into force, an informal group of experts met in 1991 to review draft technical guidelines for ESM. The group developed a list of elements applying to environmentally sound facilities. Among other things, these elements provided that storage and recycling facilities be designed to control releases, that residuals be evaluated and managed properly, and that competent oversight be maintained.

¹ The Convention also identifies materials that are not subject to the Convention (Annex IX), unless they contain material that would cause them to exhibit one or more of the characteristics identified in Annex III of the Convention. Because these materials are not generally controlled by the Convention, they will not be discussed further in this paper.

² Even before negotiations began on the Basel Convention, the United Nations Environment Programme (UNEP) issued the Cairo Guidelines for “Control over Disposal of Hazardous Wastes.” The Cairo document references ESM for the first time and sets forth-specific guidelines which would generally be described as good management practices.

- Decision II/13. After development of several draft framework documents, the Second Conference of the Parties to Basel adopted a formal framework document on technical guidelines for ESM in 1994. The document included a discussion of controls for ensuring ESM, as well as a section on good management practices (including facility standards and post-closure care). Issues addressed included the need for an appropriate regulatory and enforcement structure, proper residue management, emergency response, training, and spill prevention.
- International Workshop on the Implementation of Decision II/12. In 1995, the Parties held a watershed meeting in Dakar, Senegal which featured several important papers on ESM. Papers were presented on the elements of legitimate recycling, as well as the elements of ESM. A 1995 publication from the Basel Secretariat³ summarizes the previous publications and lists the elements seen as required for ESM.

The evolutionary process described above has yielded a general consensus on the essential elements that define ESM. These elements are described in a survey article by H. Alter.⁴ They are proposed as a “consensus of the literature,” derived from the activities mentioned above as well as others. The Alter article lists the elements of ESM as follows:

“ESM of recycling in the Basel context is a system wherein an operator manages the activities, materials, and processes in a way that minimizes adverse environmental impacts of the operation and avoids creating unacceptable risks to human health and the environment.

In order to achieve this, the recycler:

1. *Is in the business of recycling and*
 - 1.1 *operates with the full knowledge and authorization of the local competent authority;*
 - 1.2 *maintains appropriate business records;*
 - 1.3 *conducts transactions based on contracts (or equivalent commercial arrangements);*
 - 1.4 *assures that at least one product of the process is returned to the economic mainstream; and*
 - 1.5 *assures that the technology and pollution control employed are adequate to successfully recycle the secondary materials feedstocks and to meet all applicable local laws and regulations of the jurisdiction in which the facility is located,*
2. *Selects secondary material feedstocks to meet the specifications of form and/or grade and/or assay, as agreed upon by buyer and seller,*
3. *Has the necessary and appropriate technical and environmental expertise to operate and maintain the appropriate equipment to achieve the intended*

³Secretariat of the Basel Convention. “Guidance in developing national and/or regional strategies for the environmentally sound management of hazardous wastes.” Basel Convention Highlights No. 96/001, Geneva, 1995.

⁴See “Environmentally Sound Management of the Recycling of Hazardous Wastes in the Context of the Basel Convention,” *Resources Conserv. & Recycling*. 29 (2000) 111–129.

- purpose(s) and assures that facility's personnel are capable and adequately trained,*
4. *Handles and stores materials in a manner designed to minimize losses to the environment and does not store wastes speculatively,⁵*
 5. *Has a program to monitor pollutant releases from the facility and report the results to the government infrastructure, as required,*
 6. *Manages residuals of the process in a manner that does not create significant hazard to human health or the environment,*
 7. *Has an emergency response plan for accidents and takes appropriate action in case of accidental spillage or releases,*
 8. *Has a program for continuous improvement,⁶*
 9. *Conducts recycling under a governmental infrastructure that has the authority and capability to regulate the environmental effects of recycling and to enforce regulations. It is understood that the legal requirement will vary so the infrastructure will vary from operation to operation and country to country depending on the level, nature, and complexity of the recycling process and the local and/or national conditions."⁷*

These principles, with minor variation, exist in some form in most if not all of the major documents relevant to the debate of ESM under the Convention and show that the parties have achieved remarkable progress in defining ESM.⁸

However, while the ESM principles have been generally defined by the Parties, no mechanism exists to implement the consensus.

III. A SYSTEMS-BASED APPROACH FOR IMPLEMENTING BASEL ESM

Guidance from the International Council on Metals and the Environment (ICME)

⁵ Speculative accumulation is defined in local laws and may vary in duration, depending upon the nature of the recyclable materials and markets.

⁶ This may be an international program such as ISO 14001, an industry program, or the facility's own program.

⁷ There may be cases where this requirement is not met but the facility meets all other requirements, in which case it has achieved ESM.

⁸ Other principles, such as ensuring adequate disposal facilities, pollution prevention or percent of waste that a recycling facility can accept internationally, have also been identified by the Parties. However, these principles do not directly affect the ESM of a given material at a specific facility, but affect broader goals for responsible waste management at the national and global levels. While these requirements are critically important for the evolution of global strategies to reduce and control the transboundary movement of "such wastes," they do not bear directly on whether the importer is capable of importing and recycling a material in an environmentally sound manner. For example, while it is totally appropriate to encourage parties to take measures to ensure the availability of adequate disposal facilities, the determination of whether a particular importer in a specific country can manage a material in an environmentally sound manner (including disposal of residues) should be based on the objective assessment of the importer and not on whether the government of that country has taken broad measures to ensure adequate disposal facilities. So, while the Convention properly defines and prescribes provisions for both broad goals for responsible waste management and specific goals regarding ESM at a particular facility, this paper focusses only on the latter – that is, those that are essential for the ESM of a given material by a particular importer in a specific country.

ICME asked the Global Environment & Technology Foundation (GETF) to develop an implementation strategy for ESM that would:

- meet all the requirements of the Convention,
- provide enough information and transparency to promote and confirm the existence of ESM, and
- include trade features that are easy to use by industry and consistent with existing international trade rules.

ICME also wanted the proposal to state clearly that such a strategy would not affect the sovereign right of any nation to refuse to import any waste for recycling.

IV. THE GETF PROPOSAL

This paper proposes an implementation strategy that builds on both the ESM background of the Basel Convention and an internationally recognized environmental management system. The example used for the environmental management system is the one developed by the International Organization for Standardization (ISO). The proposal is a conceptual framework designed so that:

- ESM could be measured and confirmed from information collected through a reliable and recognized environmental management system;
- the environmental management system could be recognized worldwide, as required by international trade;
- an existing worldwide independent structure could speed up the implementation of the proposed ESM approach and minimize costs; and,
- the ISO 14000 series of standards could be used as a component of the proposed ESM implementation strategy. (A large number of metal recycling facilities in many countries are already ISO 14001 certified.)

Summary of the Proposal

This proposal relies upon the following three pillars for its integrity and effectiveness:

1. The Basel Parties: It is proposed that the Parties confirm a list of the elements that make up ESM and then work in partnership with ISO to develop a new ISO 14000 series standard that begins with ISO 14001. The list would contain the elements of ESM identified by the Parties (to the extent they are not already contained in ISO 14001), as well as some additional criteria, described below. It should be noted that the ISO process is voluntary and multi-stakeholder. Any stakeholder, including the Parties, could participate directly in the development of the new standard.
2. The National Governments: Each country's government would then be asked to ensure that the ESM elements identified by the Basel Parties are provided for in its laws or regulations. The laws or regulations would translate the consensus list of the elements of ESM into national requirements as appropriate for each country. A register of national governments that

have implemented such requirements would be posted for public review. The same posting could include a copy of those regulations and/or the regulations could be sent to the Secretariat of the Convention.⁹

3. **The Recycling Facility:** To be internationally recognized as practicing ESM, a recycling facility would have to comply with the new ISO system standard, as well as the requirements of the applicable national ESM program. To verify that the facility meets the new ISO standard, the facility would have to be audited by the ISO registrar's (see Appendix and box below) assessors and found to be in substantial compliance. The facility would then be eligible for certification by its national government as ESM compliant and thus be allowed to trade in approved hazardous recyclables, provided other requirements in the Convention also are met. The name of the facility and information on its compliance with the national ESM program would also be posted on the register for public review.

ISO 14001 is an environmental management system standard; it does not by itself address issues related to transboundary movements and therefore needs to be expanded to assure the existence of ESM. That is why it is proposed that the Basel Parties consider working in partnership with ISO to create a new ISO 14000 series standard for this purpose. The proposed standard will not only ensure that the importing facility is ESM-compliant, but it will do so in a manner that is transparent and trustworthy.

V. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)

ISO is a well-known international body that can be requested to provide a generic management standard for sound management of recyclable materials. Headquartered in Geneva, Switzerland, ISO was established in 1947 to facilitate international trade through the standardization of goods and services. There are now more than 12,000 ISO standards that serve to facilitate such trade.

The ISO approach offers an easy and fast start-up using an existing process that is transparent and well tested. ISO can bring into its process the international Basel organization with its culture and mission. This would be accomplished by a request to ISO from the Basel Parties to undertake the challenge of developing the "ESM system standard," based upon ISO 14001 and augmented by the Basel ESM criteria. ISO is likely to accept such a challenge since the existence of an acceptable ESM system would facilitate international trade.

Participation in the ISO standards-setting process is voluntary and would be open to all interested sectors, including governments and the Secretariat of the Basel Convention, thereby facilitating the contribution of important and diverse viewpoints. The decisions on standards within ISO are achieved by consensus.

VI. ISO 14001

ISO 14001 is arguably the most important and useful in the 14000 series and encompasses all elements of an "environmental management system." It is an international, voluntary consensus

⁹ Parties are already required to send to the Secretariat copies of their legislation to implement their obligations under the Convention.

standard that is applicable to “all types and sizes of organizations,” both public and private, and that “accommodates diverse geographic, cultural, and social conditions.”

ISO 14001 is based on a management system that involves four major steps:

1. planning for a desired outcome,
2. implementing the plan,
3. checking to see if the plan is working, and
4. correcting and improving the plan based upon observations from the checking process.

ISO 14001 does not in and of itself specify environmental performance standards (either qualitative or numeric) other than requiring continuous improvement and measurement of the system’s capacity for higher performance and commitment to compliance with applicable national regulatory requirements. Thus, it is applicable in many organizational settings and countries. In addition, regardless of local or national standards, a facility must track and continuously improve its indicators of system performance to qualify for ISO certification.

ISO 14001 provides for independent certification by third-party registrars (organizations that are trained and accredited by national accreditation bodies guided by ISO requirements for this task) as to the adequacy of the facility’s management system. The registrar’s assessor determines whether a facility complies with all the necessary components of a functional environmental management system, including the existence of procedures and programs to address local regulatory requirements.

The preparation for ISO certification by a facility involves the following steps:

- conducting an initial environmental review;
- identifying environmental aspects and impacts;
- setting an environmental policy;
- understanding and complying with local environmental laws and regulations and other standards to which the facility subscribes;
- setting environmental objectives and targets;
- setting and implementing an environmental management program(s);
- setting and implementing environmental procedures;
- establishing training and awareness;
- establishing an environmental communication system;
- establishing document and operational controls;
- installing an emergency response and preparedness plan;
- monitoring and measuring;
- tracking non-conformance and implementing correction and prevention;
- conducting an environmental management system audit; and
- providing management review and control.

ISO 14001 provides a good starting point for development of a framework for recycling facilities to commit to, prepare and implement an environmental management system that will partially assist in meeting the Convention consensus definition of ESM. Furthermore, the ISO registrars

provide an independent and internationally recognized source of assessors to verify the existence of compliance systems. However, ISO 14001 alone is not yet sufficient to meet the needs of the Basel Parties in implementing the requirement for ESM.¹⁰

VII. AN APPROACH TO IMPLEMENT ESM IN BASEL USING THE ISO SYSTEM

The following paragraphs illustrate how ESM can be assured in the Basel context by a series of steps that should begin with the ISO 14001 environmental management system standard; however, additional standards to specifically address ESM for transboundary movements should also be developed. These additional standards would provide as criteria the consensus elements of ESM developed by the Basel Parties and the requirements of the Convention to assure the ESM obligations of importing, exporting and transit countries. More specifically, some criteria would be:

- **Inclusion of the consensus elements in the ISO standard.** The new ISO series standard would include the consensus ESM principles of the Basel Parties to the extent that they are not already contained in ISO 14001. Thus, an ISO registrar would evaluate a facility's performance in terms of its development and implementation of the environmental management system as well as its performance regarding the points of Basel ESM.
- **The facility's substantial compliance with applicable laws and regulations.** It is proposed that the new ISO standard require that the facility owner/operator and the receiving country or local governing authority make a declaration that the facility is in substantial compliance with national and local laws and regulations. This is explicitly not a requirement of the present ISO 14001, which states that a facility must first commit to and then make continual improvements toward compliance. However, the debate among the Basel Parties seems to suggest that substantial compliance with the law is a minimum requirement for the recycling facility to enjoy the benefit and privilege of international approval for trade in recyclables. The expectations of the international community appear to justify the stricter requirement.
- **Reporting and disclosure.** There must be transparency with regard to the facility's environmental compliance and performance. There must also be transparency with regard to the requirements of the national and local governments of jurisdiction. This transparency may best be achieved by posting on a public Web site appropriate information, such as the results of facility self-audits and monitoring, as well as audit results by ISO registrars. However, the Parties themselves would identify the information necessary to be disclosed to the public.

It is envisioned that each country would confirm that its national laws and regulations implement the consensus elements of ESM and that the facility complies with the ESM standard.

¹⁰ The cost of certification may be an issue, especially for small- and medium-size companies for which self-certification may be an optional approach. In the context of the system approach presented in this paper, it may be appropriate for the parties to further explore this issue.

Note: The focus is on an individual facility, not a country. Furthermore, it is expected that the approval will apply to particular wastes—that is, the focus of a decision will be on an individual facility and site-specific wastes.

VIII. TRANSBOUNDARY MOVEMENTS UNDER THE PROPOSED ESM APPROACH

Under the proposed approach, an exporter could easily determine whether an importer is ESM-compliant or not.

From the public postings, the exporter would first confirm whether the national government of the importer has implemented a National ESM Program. If yes, the exporter would further consult the postings to find out whether the government has certified the importing facility as ESM-compliant and allowed it to import the specific hazardous metal recyclable. If the importer is listed as being certified, the exporter would be deemed to have confirmed the ESM compliance of the importer and could proceed with the transboundary movements, assuming that the other requirements of the Basel Convention are met.

Under the Basel Convention, any country now has a sovereign right to refuse to import any waste for recycling. The proposed ESM system would not affect that sovereign right. If a sovereign nation made a determination for any reason whatsoever that it did not want to accept a particular waste, that material could not enter the country.

IX. BENEFITS OF THE PROPOSED APPROACH

There are several benefits to the proposed approach, which would:

- **Upgrade facilities' practices through scrutiny and control.** The emphasis on transparency and disclosure is to allow public scrutiny of the facility's performance. At both the local and national level, the emphasis must be on a high level of environmental performance and compliance. The ISO 14001 requirement for continuous improvement should raise that level of performance over time for each facility.
- **Upgrade global levels of environmental and health protection.** The proposal to post applicable laws and regulations is designed to make public the environmental and health protection requirements of each country. This will provide an incentive for countries to adopt levels of protection that will be in line with generally accepted norms.
- **Build public trust through ISO-accredited third-party verification.** The dual requirement that government officials certify compliance and that accredited, independent registrars audit the facility's compliance with the proposed ISO

standard, followed by the reporting of results (for example on a public Web site) will foster public trust.

- **Improve handling of local recyclables.** Facilities wanting to import hazardous wastes for recycling will have to achieve a rigorous new standard of environmental performance. Because most such facilities also recycle locally generated materials, the system offered here will upgrade the environmental protection for handling those materials as well. As a result, international trade in recyclables will be an engine for cross-boundary and intra-national environmental improvement – a spur for excellence.
- **Ensure stewardship of valuable materials and conservation of natural resources.** The current worldwide economic growth has imposed an increased demand on our planet’s natural resources, including metals mining. Proper stewardship of these resources is environmentally advantageous and requires that we utilize recyclables as raw materials whenever possible. Opening up worldwide markets allows us to conserve valuable raw materials to the maximum extent possible, yielding maximum environmental results and promoting stewardship of these valuable natural materials.
- **Avoid uncontrolled disposal.** Conversely, materials destined for recycling that do not find markets in their host countries and are not permitted for export ultimately may be disposed of in an uncontrolled and possibly hazardous manner within the host country. Export of these materials for recovery in an environmentally sound manner is a far more ecologically desirable and responsible result than the existing potential for uncontrolled disposal.
- **Improve the economy in developing countries while protecting human health and the environment.** It is axiomatic in the recycling field that the economics of a facility are dependent upon a continuous, reliable and high-quality supply of recyclable materials. This is most important in a number of industrializing countries that face a significant supply–demand gap for several metals. Development of the proposed ISO standard for implementing Basel ESM will ensure a reliable and predictable system of commerce for global trade. The safeguards of the proposed standard will ensure that this economic improvement does not come at the expense of environmental degradation. Indeed, the provisions for transparency, compliance with national laws and regulations, and capacity building will ensure that the developing country will enjoy a higher level of protection of health and the environment.
- **Ensure continuous improvement of environmental performance and capacity building.** The proposed approach will spur environmental progress and “capacity building” as facilities and receiving countries improve their programs through the continuous improvement aspects of the ISO 14001 program. The transparency element would shine the international public spotlight on facility performance.

The marketplace and public pressure could then combine to spur compilation of reports and comparisons of similar recycling facilities around the world.

X. CONCLUSION

The Convention obligates the Parties to assure ESM for transboundary shipments. This obligation falls equally on importing, exporting and transit countries. It is difficult for an exporting or transit country to fairly judge an importing country's facility, either by inspection or from a distance. A nation has the right to determine whether or not a domestic facility is ESM-compliant. Other nations, however, need assurance that such a decision is the outcome of an internationally accepted process.

The system proposed in this paper would provide a transparent means of assuring the ESM of a facility by all judges. The proposal builds on the previous work of the Basel Parties and of the ISO environmental management system. The proposal should be readily implemented with the cooperation of all involved.

The system would also be consistent with world trade rules and would bring needed secondary raw materials to countries that have demonstrated they can handle the materials in an environmentally protective manner. The benefits of trade, availability of raw materials, economic enhancements, recycling, conservation and improved environmental protection will accrue.

APPENDIX I

Review of the GETF Approach in Relation to WTO Consistency

By Dennis Browne¹

The Basel Convention would appear to pose difficulties for Members of the World Trade Organization (WTO) because of its pervasive uncertainty and because some of the key obligations of Basel Parties could be inconsistent with their WTO obligations. From a trade regulation perspective, the question is whether the proposed “Practical Approach for the Environmentally Sound Management of Hazardous Metal Recyclables” (“the Approach”) could remove or at least mitigate the apparent WTO inconsistencies of Basel. In considering this question, the present discussion assumes that the Approach can be fully implemented by all Basel Parties.

Basel requires importing Parties to prohibit *imports* of hazardous wastes if:

- domestic ESM is not assured; and/or
- the wastes come from a non-party to Basel.

It also requires exporting Parties to prohibit *exports* if:

- ESM is not assured in the importing country; and/or
- the wastes are going to a non-party to Basel (Note: the non-party prohibitions can be overcome through Article 11 agreements, in which case the non-parties would be treated equivalently to Parties).

What appear to be quite cumbersome notification requirements must be provided between exporting, importing and transit Parties prior to the commencement of any transboundary movement of hazardous wastes. Basel appears to leave the determination of environmentally sound management (ESM) to the Parties themselves. It also calls upon Parties collectively to develop definitions (lists) of what constitute hazardous wastes for the purpose of the Convention, while reserving the right of Parties individually to determine that additional waste items also qualify, for an individual Party’s purposes, as hazardous wastes.

The Approach would remove a good deal of the uncertainty in Basel by establishing an internationally agreed definition of ESM as it applies to the varying circumstances of Basel Parties. It would also, through independent third-party assessors and maintenance of an international register, bring a great deal of reliable transparency to the international transfer and management of hazardous wastes, possibly reducing the cumbersome elements of Basel’s required exchanges of information. Furthermore, it would facilitate and possibly encourage Article 11 agreements between Parties and non-parties. The reduction in uncertainty and considerable enhancement in transparency would go some distance towards bringing international transactions governed by Basel closer to the requirements of WTO obligations.

With respect to obligations of importing Parties, Basel falls short of WTO requirements as it deals only with imports and not with domestically generated hazardous wastes. WTO Members may not restrict or prohibit the imports of any goods (including hazardous wastes) unless they

also regulate the domestic production and use of “like” goods (i.e., the same categories of hazardous products). Implementation of the proposed Approach by importing Parties would resolve this shortcoming to the extent that the Approach would apply even-handedly to imported and domestically generated materials. As ISO standards are iterative, with continual improvement, their initial implementation need not be terribly onerous for developing-country Basel Parties. Furthermore, WTO jurisprudence recognizes that environmental standards should be adapted to take account of the environmental, social and economic conditions prevailing in the country where they are to be applied.

Basel obligations relating to export controls and prohibitions are more problematic with respect to WTO obligations. Generally speaking, under the WTO export controls or prohibitions are not allowed unless:

- (i) they are necessary to relieve temporary shortages of materials required by domestic processing industries;
- (ii) they are necessary to provide standards or regulations for the classification, grading or marketing of commodities internationally;
- (iii) they are necessary to protect health and safety; or
- (iv) they are related to the conservation of exhaustible natural resources.

It could be difficult to fit the Basel requirement to reduce exports to the “minimum consistent with environmentally sound and efficient management” into these four categories.

For instance, the first category is usually considered to be temporary. However, a WTO Member may control exports to maintain a continuity of supply necessary for domestic processing industries, provided the controls are not put in place to favour domestic processors over foreign processors or to reduce domestic prices of the inputs below world levels. Full implementation of the proposed Approach could demonstrate that the principal purpose of export controls of this type would be health and environmental protection.

Export licensing procedures, as opposed to strict quantitative limitations, could be put in place to enforce packaging, labelling and transportation standards consistent with Basel requirements, provided the standards are recognized internationally. To the extent that the Approach covers these matters, its implementation could make this aspect of Basel requirements WTO-consistent.

With respect to export controls or prohibitions related to health and safety or to exhaustible natural resources, the difficulty for Basel is that WTO jurisprudence makes it quite clear that such controls must relate to health and resources within the territory of the WTO Member applying the trade measure or, at least, to exhaustible resources in which the Member has an identifiable interest. WTO jurisprudence has established that the “exhaustible resource” being protected may be clean air, and this could almost certainly be extended to clean water. Implementation of the Approach by all Basel Parties could go some way towards meeting this requirement on the basis of the following two points:

- (i) the fact that more than 140 national governments would have ratified Basel and implemented internationally agreed rules (the Approach) could demonstrate a sufficient link between the domestic interests of the Parties and their interests in protecting clean air

and water globally from the deleterious effects of inappropriate transboundary movements of hazardous wastes;

(ii) full implementation of the Approach could, in effect, make the issuance of export licences conditional upon the receipt of import licences which, in turn, would be conditional upon the importing country's processing or disposal capacity of the wastes in question as set out in the independently audited international register. In short, the export controls would be complementary to and dependent upon import controls established on the basis of internationally agreed and highly transparent standards. In other words, full implementation of the Approach would allow the primary onus to control international trade to be seen to fall on the importing country. This is more likely to be consistent with WTO obligations than if the onus were placed unilaterally on the exporting country.

Finally, there is the question of whether trade measures included in Multilateral Environmental Agreements (MEAs), e.g. the Basel Convention, could or should be adjudicated at the WTO. While this issue has not yet arisen, if the governments concerned in a trade dispute relating to an MEA measure are both Parties to the MEA and Members of the WTO, it is this author's view that the complaining Party would not be able to sustain a complaint in the WTO. This is because the right to bring a complaint under the WTO rests not on the question of whether a WTO Member is acting in breach of its WTO commitments, but of whether the complaining Member is being denied benefits that it believes should accrue to it under the WTO. Surely a government that signs away certain trade benefits by entering into an MEA has no firm grounds to then claim those same benefits under the WTO. Such an assertion would demonstrate that the government entered into one of the agreements, either the MEA or the WTO, in bad faith.

The case would be much different, however, if a complaint were brought to the WTO by a WTO Member that is not a Party to the MEA. In such a case, the complaining Member has not given up any of its rights to the benefits that should accrue to it under the WTO but are being denied by the MEA, e.g., by the Basel prohibition on trading with non-parties. Full implementation of the Approach might overcome this dilemma as the Approach is based on the development of an ISO 14000 series standard. Consequently, governments that recognize ISO standards (as all WTO Members are supposed to do) might be expected to adhere to the standards established by the Approach. The ready availability of Basel Article 11 agreements, again based on the highly transparent and independently audited provisions of the Approach, might undermine the validity of a claim under the WTO that ISO standards being applied under Basel should be set aside by the WTO.

As noted above, MEA-based trade measures have not been considered by the WTO. It is clear from discussions in the WTO Committee on Trade and the Environment and elsewhere in the Organization that the WTO does not wish to intervene in the activities and obligations of MEAs. While a conflict between the WTO and an MEA may one day arise, a sensible way to reduce the possibility of such a conflict occurring between the WTO and Basel would be to implement Basel on the basis of highly transparent procedures through an international standards-setting organization specifically recognized in WTO agreements, as proposed in the Approach.

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Trade Policy and Law (CTPL), which is affiliated with the Norman Paterson School of International Affairs at Carleton University and the Faculty of Law at the University of Ottawa. In that capacity he developed and delivered training programs in trade policy to government officials and business executives of 18 countries, and was the principal trainer in trade policy at the Canadian Foreign Service Institute. He also managed a diverse and ambitious program of international technical assistance, research and publications by CTPL. Prior to his stint as Director of CTPL, Mr. Browne served for 31 years in Canada's foreign service, during which he had trade-related diplomatic postings to London, Canberra, Moscow and Washington and served as Ambassador to Sweden and Consul General in Los Angeles. His headquarters assignments included several senior positions relating to trade and economic policy and trade development. He earned his B.Com and LL.B. degrees at the University of British Columbia and his LL.M., specializing in international trade law, in 1994 at the University of Ottawa.

GLOSSARY

Accreditation

The qualification given to a body that indicates it has met all the requirements and is competent to conduct certain operations or activities. For the purpose at hand, accreditation signifies that a registrar is considered able and competent to conduct “ESM system audits” of facilities and to award registrations to those whose systems conform to the requirements of the “ESM system standard.”

Certification of Assessors

The process of qualifying individuals whom will have the competence to perform “ESM system audits.” These individuals must have technical, systems, auditing and regulatory competence to earn certification as qualified assessors. Certified assessors are employed by “registrars” to conduct the registration audits of “ESM systems.”

Compliance

To be in accordance with government regulatory requirements.

Conformance

To be in accordance with the requirements of a voluntary, consensus standard.

ESM Assessors

Individuals who are qualified “ESM system” assessors. These individuals will be certified for such function if they meet the international certification criteria. They are employed by “registrars” to conduct the “ESM system audits” and the follow-up “surveillance audits.”

ESM Surveillance Audits

The periodic re-audit by a registrar of a facility that has already received its registration. The purpose of surveillance audits is to re-establish that the facility’s system continues to meet the requirements of the “ESM system standard.” The same registrar who awards the registration to a facility conducts surveillance audits.

ESM System

The system implemented by an importing facility to provide the institutional capacity for consistent and reliable ESM of its recycling operation. Without an “ESM system,” the facility’s ability to meet the ESM criteria is unpredictable and may be based entirely on the competence of one or two individuals. An “ESM system” avoids the precarious nature of performance that is based on the competence of individuals and not on an organizational structure.

ESM System Audit

The audit of a facility’s “ESM system” by an accredited third-party registrar to ascertain if that system conforms to the requirements of the “ESM system standard” and whether it has the institutional capacity to reliably and consistently meet the “ESM criteria.”

ESM System Standard

The international standard for ESM of recyclable materials to be developed for shipments of hazardous waste under the Basel Convention. The implementation of management systems by recycling facilities that conform to the requirements of this standard provides them with the institutional capacity to meet the consensus ESM principles of the Basel Parties reliably and consistently. Without such a system, an organization's ability to meet those requirements is precarious and uncertain. Other system standards (e.g. ISO 9000 for Quality Management and ISO 14001 for Environmental Management) have been developed and applied widely in recent years with considerable success and popularity. International committees of technical experts develop such standards. Committees formed by the ISO are foremost among these.

Exporter

A party that becomes the source of a recyclable material that is destined for recycling by a facility in another country.

Importing Facility

The facility that imports a material for the purpose of recycling.

International Accreditation Forum (IAF)

This body provides a coordinating function among registrars. Its membership consists of registrars who have committed to follow IAF guidelines for their practices and conformity assessment operations. Virtually all of the major international registrars are members of IAF. IAF promotes consistency among international registrars through a process of mutual recognition. Registrars who have evaluated each other and deemed their operations to be similar in quality and in the interpretation of a given standard will grant each other recognition of the registrations that each has separately awarded. This obviates the need for an organization to obtain several registrations from different registrars in different countries. More importantly, mutual recognition works to homogenize the conformity assessment practices of the international registrars. This promotes the uniform application of a standard since it will be evaluated very similarly regardless of which country or facility is implementing it.

International Auditor and Training Certification Association (IATCA)

This organization establishes international criteria to certify the individual assessors who conduct the facility audits, as well as those who provide training on ISO standards. Because of its international reach, the application of IATCA guidelines provides consistency in the quality and competence of assessors and of training professionals on a worldwide basis.

International "Registrars"

An ancillary feature of ISO system standards is the opportunity to have an organization's implementation of such systems registered by independent third parties if the implementation conforms to all specific requirements of that standard. These third parties are known as registrars and include, among others, such international entities as Underwriter Laboratories (US), the British Standards Institute (UK), KEMA (Holland), BVQI (France) and DNV (Norway). These organizations have very successfully established services for the certification of conforming Quality Systems (ISO 9000) and Environmental Management Systems (ISO 14000).

System Registration

The official recognition by an independent, accredited, third-party registrar that the “ESM system” implemented by an importing facility conforms to all requirements of the “ESM system” standard and that it has been effectively implemented to reliably and consistently achieve the facility’s ESM objectives and targets. Such registrations are given when the facility undergoes and passes a system audit by the registrar.

Third-Party Registrar (Registrar)

A private-sector organization that conducts “ESM system” audits for a fee to verify that an implemented “ESM system” conforms to the international ESM system standard. Registrars that will qualify to conduct “ESM system audits” will be accredited to perform such audits by accreditation bodies which are members of the IAF and which follow IAF guidelines for such accreditation.

Withdrawal of Registration

This occurs when a facility loses its registration. A facility will lose its registration if the results of a surveillance audit indicate that its “ESM system” no longer conforms to the requirements of the “ESM system standard.”

