

Annex 4

IEM Action Plan

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ANNEX 4

4.1 Report on the EMPOWER IEM Action Plan Roundtable

4.1.1 1st EMPOWER IEM Action Plan Roundtable (February 5, 2003)

The basic framework of IEMAP was approved by the Steering Committee in its 7th Meeting in November 2002. The first draft of IEMAP was crafted based on this approved framework and comments of OIP, review of previous and current IEM studies and initiatives (IEMP, MEIP, IISE, PRIME, EPIC) as well as EMPOWER's industrial survey of 100 firms last year and feedbacks from the EMPOWER Seminars and Steering Committee meetings.

The 1st draft IEMAP was presented to the Steering Committee in its 8th Meeting on Jan. 31, 2003 and the 1st Roundtable (for multiple sectors) following the 3rd EMPOWER Seminar on Feb. 5, 2003. The feedbacks gathered so far about the draft IEMAP are shown in the following table:

Feedbacks gathered on the draft IEM Action Plan	
Comments	Response
<p>On IEM Technology Promotion:</p> <ul style="list-style-type: none"> ➤ Integrated IEM technology information clearing house is urgently needed ➤ Need for an establishment of MOA to designate the duties of government agencies in establishment of a clearing house ➤ Include Media in future Roundtables and Seminars ➤ Awards and recognition to spur mobilization, e.g., National Environmental Quality Awards ➤ Since industry cannot depend on government subsidies due to budget deficits, industry associations can help their members by embarking on common service facility (e.g. waste treatment facility) to save cost ➤ Establishment of Industry-specific environmental performance indicators. 	<ul style="list-style-type: none"> ➤ Integrated clearing house is IEMAP's flagship project; IEMAP prioritizes the integration of information services with technology adoption assistance in terms of credit, organizational absorption capacity (like in agricultural extension) ➤ Capacity building of industry associations as cause champion is already stressed in IEMAP
<p>On IEM Technology Assessment, including Environmental Cost Accounting:</p> <ul style="list-style-type: none"> ➤ Quantify benefits and savings for top-management support and potential investors ➤ Promotion of Environmental Guidelines ➤ Needs assessment prior to technology application ➤ Assessment criteria, inclusion of adaptability (in the Philippines) as an evaluation criteria, e.g. availability of repair centers ➤ Customized IEM technology packaging for selected industrial clients including financial scheme, ECA ➤ Problem with environmental cost accounting (ECA) is there are only few practitioners (BOI is working with PICPA through EPIC) 	<p>Well-taken suggestions</p>

Feedbacks gathered on the draft IEM Action Plan	
Comments	Response
<p>On current Best Manufacturing Practices (c-BMPs) for IEM:</p> <ul style="list-style-type: none"> ➤ Best practices/ technologies for industries are available at PCCI and MAP ➤ ITDI has completed some sector guidebooks for specific industries, e.g. nata de coco, electroplating. Conduct needs assessment for each specific type of industry <p>On Capacity Building of Industrial Firms and Associations:</p> <ul style="list-style-type: none"> ➤ Of the 18 industrial subsectors, give priority to sugar milling, electroplating and coconut-based industries; add to the priority sub-sector the furniture/wood-based industry ➤ Sustained industry training on waste minimization 	<p>Well-taken points</p>
<p>On Comprehensive Recycling Policy:</p> <p>1. National Inventory of Recyclables</p> <ul style="list-style-type: none"> ➤ Inventory based on Sectors ➤ Directory of recyclers and consolidators (which are mostly located in Manila) ➤ Possible products and market ➤ Recyclable materials also include hazardous waste 	<p>All points are well-taken.</p> <p>Recyclable materials with hazardous wastes can be used only with some restrictions</p>
<p>On Comprehensive Recycling Policy:</p> <p>2. Policies and instruments</p> <ul style="list-style-type: none"> ➤ Redefine what “recyclables” mean ➤ Include recyclables and potentially recyclable wastes ➤ Interagency policy formulation ➤ Create market ➤ Involve LGUs, e.g., barangay help them identify the materials recovery facility location ➤ Legitimize informal recyclers, e.g. formation of environmental cooperatives ➤ Conduct market analysis both in metro and province ➤ Determine critical mass, e.g., volume/ characterization of waste ➤ Provide funds for small recycling businesses ➤ Implement “polluters pay” policy, e.g., used oil to be given to recyclers at a price for generators, not vice-versa ➤ Economic incentives to promote recycling. As incentive to companies, less stringent requirements e.g. frequency of reporting, penalties for violation and discounts 	<p>LGUs must be involved because of their jurisdiction over recyclables generators as well as solid waste management like materials recovery facility.</p> <p>“Polluters pay” principle is not followed for high-value recyclables (e.g., used oil, spent solvents, noble metal sludge) because it is a sellers’ market.</p> <p>Recyclables market analysis is part of IEMAP</p>
<p>On Comprehensive Recycling Policy:</p> <p>3. Selection of Priority Projects:</p> <ul style="list-style-type: none"> ➤ Prioritize those with highest negative impact ➤ Replicate success stories such as the experience of broken glass collectors 	<p>Risk-based criteria in selection of priority projects will be applied. Success stories will be studied as part of the search for best practices.</p>

Feedbacks gathered on the draft IEM Action Plan	
Comments	Response
<p>On Legal and Regulatory Framework for IEM Promotion</p> <ol style="list-style-type: none"> 1. Consideration of inadequate enforcers or poor training of enforcers as an issue. 2. Strengthening of “community pressure” to enhance industry compliance to environmental regulations. 3. Position papers for legislators and DENR re environmental bills and need for amendment of existing laws and regulations. An example is the pollution charge that should be expanded nationwide because it induces more compliance. 4. No incentives to industries to implement environmental laws. 5. Limited budget for the government to assist the industries to comply with environmental standards thru IEC and environmental technology dissemination. SMEs are also constrained to implement EMS because of limited budget. 6. Establishment of Green Purchasing Policy among industries would create a demand for “green products” and environmentally prepared raw materials. 7. Promote LLDA practice on IEM promotion: sharing of information with Pollution Control Officers and 20% discount on charges and fees if paid within 15 calendar days. It uses the revenue from Environmental Users Fee for water quality management program and projects such as infrastructure, technical assistance center and training. Twenty percent of the revenue collected is shared with the LGUs for their environmental project especially the establishment of sewage treatment system. 	<p>All points all well-taken and already or will be considered in IEMAP.</p>
<p>On Fiscal and Financial Incentives for IEM Promotion</p> <ol style="list-style-type: none"> 1. Lack of awareness on available incentives/accessibility and simplification of procedures for accessing incentives and financing. 2. Recognition or awards such as tax deduction for good environmental performance. 3. A multi-criteria decision framework in the development of an integrated system of incentive. 4. Full cost accounting in the analysis of proposed incentive schemes or options 5. Incentives for equipment upgrading since old outdated equipment produce pollution. 6. Inclusion of furniture manufacture as a priority sector because it produces toxic wastes and paint sprays cause air pollution 7. Market-driven incentives identified during situational analysis. 	<p>BOI will work with DENR on the awards and recognition.</p> <p>BOI will work with PEZA, DENR, LLDA and LGUs on harmonizing incentives.</p> <p>BOI will explore application of ECA to evaluation of incentives.</p>

Feedbacks gathered on the draft IEM Action Plan	
Comments	Response
8. Harmonization of incentive packages of DENR, LGU, BOI and PEZA	
General Comments: 1. There is a need for basic environmental education, and making industries aware of the importance of environmental management plans. 2. Other government agencies should be involved in the IEMAP such as the Department of Health and Department of Energy	Advocacy on IEM is part of IEMAP. Inter-agency collaboration and stakeholder participation are key strategies in IEMAP.

4.1.2 2nd EMPOWER IEM Action Plan Roundtable (February 12, 2003)

As part of the series of consultations with stakeholders on the development of the National Industrial Environmental Management Action Plan (IEMAP), the JICA EMPOWER Team held its second Roundtable at BOI on February 12, 2003. A total of 27 people participated (including JICA/EmPOWER team members and BOI personnel). The represented government agencies were Land Bank, Development Bank of the Philippines, PEZA, DOST/ITDI, DOE, LLDA, DENR/EMB, DTI (including attached agencies such as Small Business Guarantee Fund Corporation and Bureau of Small and Medium Enterprises Development), and the National Solid Waste Management Commission.

COMMENTS AND SUGGESTIONS

The JICA Study Team presented the EMPOWER project, the IEM Action Plan (IEMAP) framework, objectives and strategies. The participants provided information and comments that would be useful inputs for the IEMAP, as follows:

Comprehensive Recycling Policy

Laws and Implementing Rules and Regulations (IRR) on recycling are sufficient. Translation of the IRR into implementation guidelines and specific programs is needed.

Recyclers need support in terms of clustering and promotion of common treatment facility as well as strategically located reclamation or buying centers.

IEM Technology Promotion

Activities should be integrated with other components of the IEMAP.

Cooperation or partnership with industries is possible if the government can veer away from its regulatory stance and convince industries of its assistance. An example is an open forum with a DENR regional director that brought out industry concerns on regulations.

Industries can be clustered either by sectors or location to facilitate government assistance. The clustering of industries has already been considered by BOI in the Investment Priorities

Plan, where one industry cluster per province is allowed including necessary support industries and facilities.

Clean Production should include technologies indigenous in the country or neighboring Asian countries. Before promotion to industries, the government, e.g. DOST should verify its application from users.

Fiscal and Financial Incentives

The development banks reported on the slow availment of funds, and they joined the Philippine Environmental Partnership Program to attract borrowers. They need information on what other incentives can be given to SMEs.

As a component of President Arroyo's "Sulong Program," the Small Business Guarantee Fund (SBGF) provides a unified SME lending. IEM could be incorporated in the lending program, but SBGF do not believe that they can require environmental compliance to its borrowers.

Land Bank and DBP cannot provide performance-based loans because of the requirement of development assistance agencies. They need collateral as guarantee for payment. Due diligence is required of its borrowers.

(Comment: a dialogue with the Bangko Sentral and the National Credit Council will be needed to work out innovative financing incentives.)

Other banks e.g. commercial banks should be more aware of IEM, and involved in the formulation and promotion of incentives.

IEMAP consultations should include not only the organized progressive associations but also the SMEs.

Legal and Regulatory Measures

The Philippine Environmental Partnership Program, initiated by DENR, could benefit from the implementation of IEMAP. Its partners, DTI, Land Bank, DBP, Asian Institute of Management, DOST, and Union of Local Authorities of the Philippines (ULAP) are working together to promote IEM. A pending DAO provides regulatory privileges and technical, fiscal and financial assistance to encourage adoption of Environmental Management System. The partnership needs an institutional framework to define the responsibilities of the partners, synchronize assistance and responsibilities, and time frame.

The Congress passed laws that should encourage IEM adoption, such as the Clean Air Act, RA 9003, and ban on surfactants. Hazardous Waste Management Act is being deliberated on to amend contested portions of the Clean Air Act. Congress uses the following criteria in developing laws: effectivity, enforceability, and address concerns of stakeholders. Among the approaches used for environmental laws are strengthening of command and control through increased fines, penalty and liability, use of market-based incentives, citizen's suit, and environment fund to be used in enforcement. Congress and Senate created a committee to oversee implementation of environmental laws.

Improvement of environmental law enforcement must provide solutions such as disposal of hazardous wastes and solid industrial wastes. PEZA is working out a scheme where wastes could be lodged in a halfway house until a long-term solution is found.

CONCLUSION

The roundtable provided the perspective of government institutions on the IEMAP. There is an agreement that for SMEs to adopt IEM, effective strategies are needed.

4.1.3 3rd EMPOWER IEM Action Plan Roundtable (February 21, 2003)

The JICA EMPOWER Team held its third Roundtable at BOI on February 21, 2003. A total of 25 people participated (including JICA/Empower team members and BOI personnel). The business associations that participated were SPIK, Cocomchem, Philippines Sugar Millers Association, Beverage Industry Association, PULPAPEL, Association of Petrochemical Manufacturers of the Philippines, and the Polystyrene Packaging Council of the Philippines.

COMMENTS AND SUGGESTIONS

The JICA Study Team presented the IEM Action Plan (IEMAP) framework, objectives and strategies. The participants provided information and comments that would be useful inputs for the IEMAP, as follows:

Comprehensive Recycling Policy

There must be a mechanism to document community initiatives on recycling. Bais City produces bags from packaging laminates, which are being promoted in other countries.

There is a need to update list of recyclers and consolidators, and recyclable products and disseminated to collectors.

DTI/BOI had submitted to NEDA for its consideration, a proposal to JICA for the Study on the Recycling Industry Development in the Philippines.

BOI should offer incentives to encourage the development of the recycling industry.

Recycling policy should consider disposal of hard goods such as computers.

Local government units are the key to the success of recovery of materials. They must be given a business sense on coordinating junk shops.

Local barangays would be expensive collection points of recyclables. Barangay Materials Recovery Facilities (MRFs) would be difficult to implement, aside from the fact that funding and transport are issues to consider.

IEM Technology Promotion

SPIK is promoting Responsible Care, which should also be extended to other non-members.

PULPAPEL is requesting that the TIPCO-UPLBCF technology on development of particleboard from paper sludge and cement be disseminated to industries.

Fiscal and Financial Incentives

The IEMAP is laudable because it encourages tax incentives for good performance. Taxes and penalties should be paired together.

BOI is faced with legal constraints to offer incentives on environmental projects since as it is, only new projects are entitled to incentives due to the absence of capital equipment incentives. The JICA Team advised a paradigm shift where environmental cost accounting should be promoted to realize cost-benefits analysis that will support or justify the granting of incentives.

Legal and Regulatory Measures

The APMP is requesting if cross-compliance principle of laws is possible because it cost the industries to comply with various laws. The Philippine Environmental Partnership Program, initiated by DENR, could approximate this because it encourages self-regulation.

There is a need to streamline issuance of permits in order to avoid delays in disposal of hazardous wastes.

Return to vendor mechanism, especially for handling of used chemicals should be formulated as part of Green Procurement Policy. There are no success stories yet on this mechanism.

Requiring Extended Producers' Responsibility (EPR) will burden the industries, but it is a good practice to consider industry inputs in drafting of policies. Life cycle management is part of EPR. In Germany, the concept is embodied in white goods law, which has stringent requirements. SPIK announced that by 2010, global harmonized system of labeling will be required of all industries.

CONCLUSION

The roundtable provided the perspective of industry association and BOI on the IEMAP. The represented associations agree with the IEMAP, but their concerns should be inputted.

PARTICIPANTS

Name	Designation	Agency
1. Teresita Corpuz	Director	SPIK
2. Eladio Ebreo	PCO	Cocochem
3. Edna B. Tatel	Policy Consultant	Phil. Sugar Millers Assoc.
4. Sonny C. Valencia	Manager, Environmental Affairs	Beverage Industry Association
5. Reynaldo A. Gomez	Technical Service Manager/Environmental Manager	PULPAPEL
6. Tony Chiong	Commissioner	National Solid Waste Management Commission
7. Jong Sereno	Executive Director	Association of Petrochemical Manufacturers Association
8. Mila S. Antofina	Project Officer	Phil Business for the Environment
9. Imelda P. Sarmiento	Executive Director	Clean and Green Foundation Inc.
10. June Alvarez	Project Manager	Clean and Green Foundation Inc.
11. Raquel B. Echague	OIC, Environmental Matters Division	OIP/BOI
12. John Erwin	Investment Specialist	OIP/BOI

Name	Designation	Agency
Furagganan		
13. Victoria A. Lamban	Investment Specialist	OIP/BOI
14. Marco R. Carlos	Investment Specialist	BOI
15. Jennelyn V. Gatuz	Investment Specialist	BOI
16. Maricel K. Songco	Investment Specialist	BOI
17. Diovenio A. Custodio	Investment Specialist	BOI – Incentives
18. Arnold Romeo A. Limson Jr.	Supvlg. Investment Specialist	BOI – Legal
19. Donna A. Lipar	Supvlg. Investment Specialist	BOI- One Stop Action Committee
20. Adelina A. Batallones	DC	BOI-OSAC
21. Lydia P. Ordonez	DC	BOI-OSAC
22. Marlito L. Cardenas	Team Member	JICA EMPOWER
23. Priscilla P. Rubio	Team Member	JICA EMPOWER

4.1.4 4th EMPOWER IEM Action Plan Roundtable (April 30, 2003)

The JICA EMPOWER Team held its fourth IEM Action Plan Roundtable at BOI on April 30, 2003. A total of 8 people participated (including 2 JICA/Empower team members and 1 BOI staff). From 20 invited associations, five participated which included PICPA (Philippine Institute of Certified Professional Accountants), MAP (Management Association of the Philippines), Philexport (Philippine Exporters Confederation), PBE and MEMSI (Madecor Environmental Management Systems Inc.).

COMMENTS AND SUGGESTIONS

The JICA Study Team presented the IEM Action Plan (IEMAP) framework, objectives and strategies. The participants provided the following information and comments:

IEM Action Plan Framework

Various initiatives on IEM have happened in the past decade, hence it is more appropriate to state that “There is not enough action of private industries...” rather than “...very little action of private industries...”.

It is true that IEM is a cost center, but the misperception is that it has little payback.

Industries would be more interested in Recycling and Incentives. Legal instruments need implementation, and technology adoption depends on market conditions.

IEM Framework should include a clearer presentation of indicators and review of past IEM efforts.

IEM Technology Promotion

Environmental cost accounting (ECA) is a process and needs refinement. PICPA is actively campaigning for industry awareness of ECA, which is used as an ad hoc tool for investment analysis. Ideally, the next step is installation of ECA in the company system, which will take 3-6 months. The system can be easily replicated to other companies when a hands-on

company can train other companies. Based on PICPA's estimate, the IEMAP could target only a maximum of 5 subsectors to implement ECA within the next three years, starting with chemical industries.

MAP is willing to cooperate with BOI's IEMAP, and suggested to start with the Sustainable Development Award in June. The award may be more meaningful than IEMAP's proposed industry environmental award.

Greening the supply chain through large industries plays a big role in convincing SMEs to adopt IEM.

Fiscal and Financial Incentives

Liza Antonio relayed the industry concern with BOI's deletion of incentives for environmental projects, which effectively removes the impetus for improved environmental performance. R. Echague said that environment is not a separate sector, but classified in the Investment Priorities Plan under logistics, cutting across all sectors. DTI cannot require environmental performance unless its role is defined in legal laws, as in RA 9003. Flordeliza Leong of Philexport said the association is clarifying with BOI its support for environmental projects, because its members need the specific categories.

BOI could encourage environmental investments by providing investment brochures in collaboration with DENR.

Environmental loans are not competitive, since interest charges are the same as commercial loans. Banks could encourage loans by providing grants on pre-feasibility studies.

Recycling

Policy on recycling is needed to strengthen and improve recycling markets.

The recycling industry needs study on tax structure because it could be a constraint in selling products, e.g. used oil.

The Global Institute of Japan is supporting a study on interboundary markets of recyclable materials. MAP research showed the lack of information on categories of recyclable materials, uniform coding, and importing/exporting countries.

CONCLUSION

The roundtable provided the perspective of umbrella industry associations on the IEMAP. The comments of represented associations are good inputs to the IEMAP.

PARTICIPANTS

Name	Designation	Agency
1. Fatima Reyes	Chair, Environmental Accounting	PICPA
2. Corazon M. Ramirez	Technical Resources Manager	MEMSI
3. Ma. Flordeliza C. Leong	Manager	PHILEXPORT
4. Cora Claudio	Chair, Environment Committee	Management Association of the Philippines
5. Liza Antonio	Executive Director	PBE

Name	Designation	Agency
6. Priscilla P. Rubio	Team Member	JICA EMPOWER Study Team
7. Marlito L. Cardenas	Team Member	JICA EMPOWER Study Team

4.1.5 5th EMPOWER IEM Action Plan Roundtable (June 16, 2003)

As part of the series of consultations with stakeholders on the development of the National Industrial Environmental Management Action Plan (IEMAP), the JICA EMPOWER Team held its fifth Roundtable at BOI on June 16, 2003. A total of 20 people participated (including JICA/Empower team members and BOI personnel). The represented donor agencies were JICA, UNDP, UNIDO, USAID, ADB, GTZ, European Union, British Embassy, and PEMSEA/IMO.

COMMENTS AND SUGGESTIONS

R. Echague presented the objectives and outputs of the EMPOWER Project. S. Sugimoto of the JICA Study Team presented the IEM Action Plan (IEMAP) framework, objectives, strategies, activities and budget. The participants provided information and comments that would be useful inputs for the IEMAP, as follows:

IEM Technology Promotion

EPIC is working with SMEs to improve competitiveness, and its activities complement with IEMAP. It is riding on existing policies such as Clean Water Act, Toxic and Hazardous Waste. The pending policy on National Environmental Management Authority could contribute to a better institutional set up of environmental management.

UNIDO is working on IEM Information Center, could be part of IEM Network.

UNIDO's POP disposal project notes the lack of interest among operators and government.

Promotion should address waste disposal.

ADB's BOOST Project is promoting clean production to 20 firms in 8 sectors, and enhancing the capacity of DOST in CP Promotion. The one-year project started on May 2003. It will develop and demonstrate environmental performance indicators and EMS for SMEs; environmental technology verification and evaluation protocols; business plan for ITDI/DOST; and capacity building program for industry, DOST and other stakeholders.

Trade Partners UK offers best practices and technologies on its website. It has conducted conferences on waste management and energy conservation, and reports are downloadable. (*wait for email)

The European Union offers co-financing and grants on EMS training. (* wait for email/info)

USAEP is building the capacity of the Department of Health and DENR to manage toxic and hazardous wastes, through the US Environmental Protection Agency.

The Philippine Business for Social Progress is involved in USAEP's greening the supply chain.

The German Development Service is collaborating with Cebu Chamber of Commerce to offer technical assistance to furniture makers.

Fiscal and Financial Incentives

There should be no incentives, emphasis should be on enforcement.

It is difficult to meet requirements of financing institutions.

GTZ is developing a project with DTI, "Private Sector Development," and environment could be part of enabling business environment and business development services.

Legal and Regulatory Measures

The Philippines is advanced on regulations, but implementation is weak. Companies know the requirements but do not know how to proceed.

Policy on user fees hinders SME development. Other flexible tools such as trading permits could help.

The Environmental Partnership Program may meet resistance by DENR regional offices, and this should be ironed out in the preparation of guidelines.

Recycling policy should consider the informal sectors.

Clean Water Act is being discussed in several roundtables to address possible implementation issues.

Discussions are ongoing on the implementation of Clean Air Act. Gaps will be identified and measures on how to move it faster will be discussed in a planning workshop of EMB and stakeholders on July 17-18, 2003.

Regulatory measures are not being implemented because there is no clear accountability. LGUs should be accountable. However, tying up mayor's permit with compliance may not be acceptable politically. LGUs should be oriented on being partner of industries.

Environmental impact assessment could be the policy that could take care of enforcement, but it is not working, and a source of corruption. World Bank is addressing the process to strengthen EIA.

USAID's Ecogovernance Project is studying the sustainability of two local material resource facilities.

CONCLUSION

The roundtable provided the perspective of donor agencies on the IEMAP. A number of projects can provide information for better implementation of the IEMAP, as well as complementation.

PARTICIPANTS

Name	Designation	Agency
1. Rafaello Tarroni	Representative, Phil and the Pacific	UNIDO
2. Amelia Supetran	Project Manager, Environment	UNDP
3. Ghetto Pascual	Project Manager	EPIC
4. Conchita Silva	Deputy Team Leader	BOOST Project (ADB/ITDI)
5. Fidel Ventura	Commercial Officer	British Embassy
6. Reynaldo Cancio	Economist	European Union
7. Marcial Semira, Jr.	Technical Staff	USAEP/LBG
8. Joy Jochico	Program Manager	USAID
9. Jean Roxas	Project Officer	GTZ
10. Maricor Ebarvia	Technical Officer-Env. Investments	PEMSEA/IMO
11. Hiroyuki Kojima	Planning Officer	JICA
12. Masato Ohno	Team Leader	JICA/EMPOWER
13. Marlito Cardenas	Team Member	JICA/EMPOWER
14. David Williams	Team Member	JICA/EMPOWER
15. Satoshi Sugimoto	Team Member	JICA/EMPOWER
16. Priscilla P. Rubio	Team Member	JICA EMPOWER
17. Erlinda Arcellana	OIC	OIP/BOI
18. Raquel Echague	OIC, Environmental Matters	OIP/BOI
19. Helen Casco	Sr. Investment Specialist	OIP/BOI
20. Daisy Sugapong	Sr. Investment Specialist	OIP/BOI

4.1.6 6th EMPOWER IEM Action Plan Roundtable (August 13, 2003)

The JICA EMPOWER Team held its sixth and final Roundtable at BOI on August 13, 2003. A total of 22 people participated (including JICA/EMPOWER team members and BOI staff). The represented donor agencies were JICA, UNDP, UNIDO, USAEP, ADB, GTZ, German Development Service (DED), Norwegian Embassy, and Swedish Embassy. The JICA Study Team presented the IEM Action Plan (IEMAP) framework, objectives, strategies, activities and budget.

The comments and potential partnership are summarized as follows:

Funding Agency	Comments	Potential Partnership
UNDP	IEMAP within framework of UNDP environmental program	Parallel implementation with EPIC
UNIDO	Business competitiveness is not only dependent on environmental performance	Open for discussion of National CP center and INDENET
ADB	Check previous studies	Coordination with BOOST (CP project)
GTZ	Small budget for AP 2 and 3 may only take 1st step New program on SME business promotion do not include IEM	PEZA project complements IEMAP

Funding Agency	Comments	Potential Partnership
	Appraising PEZA proposal on development of eco-industrial zones	
DED	Definition of ownership and private enterprise partnership	Will contact BOI when funding is available.
JICA		Supporting CP training. Recycling policy
USAEP	Low availment for financing may indicate lack of business reason to do so	May support PEPP but will check if it is compatible with DENR policy
Norwegian Embassy		Will check if NORAD had available grants

CONCLUSION

The roundtable provided the perspective of donor agencies on the IEMAP and their potential involvement. BOI should package IEMAP into capsule proposals, and conduct follow up meetings.

PARTICIPANTS

Name	Designation	Agency
1. Raffaello Tarroni	Representative, Phil and the Pacific	UNIDO
2. Morito Francisco	Program Assistant	UNDP
3. Ghetta Pascual	Project Manager	EPIC
4. Conchita Silva	Deputy Team Leader	BOOST Project (ADB/ITDI)
5. Jill Lucas	Coordinator	USAEP
6. Tatiana Gallego-Lizon	Intern	ADB
7. Arlene Macaranas	Sr. Commercial Officer	Royal Norwegian Embassy
8. Nayoka Martinez	Commercial Officer	Swedish Embassy
9. Jean Roxas	Project Officer	TESDA-GTZ
10. Christian Widmann	Project Officer	TESDA-GTZ
11. Christoph Dehm	Country Director	DED
12. Hiroyuki Kojima	Planning Officer	JICA
13. Masato Ohno	Team Leader	JICA/EMPOWER
14. Marlito Cardenas	Team Member	JICA/EMPOWER
15. Kaoru Oka	Team Member	JICA/EMPOWER
16. Satoshi Sugimoto	Team Member	JICA/EMPOWER
17. Priscilla P. Rubio	Team Member	JICA EMPOWER
18. Erlinda Arcellana	OIC	OIP/BOI
19. Raquel Echague	OIC, Environmental Matters	OIP/BOI
20. Helen Casco	Sr. Investment Specialist	OIP/BOI
21. Daisy Sugapong	Sr. Investment Specialist	OIP/BOI
22. Victoria Lamban	Investment Specialist	OIP/BOI

Annex 5

Planning of the Pilot Projects

PDM for Waste Minimization Pilot Project	1
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PDM for Ecolabeling and Green Procurement Pilot Project	6

ANNEX 5

5.1 PDM for Waste Minimization Pilot Project

Project Area: Luzon and Visayas

Target Group: Four Industry Sectors

Duration: November 2002 – July 2003

Date: June 10, 2003

Narrative Summary	Objective Verifiable Indicators	Means of Verification	Important Assumptions
<p>Overall Goal</p> <ul style="list-style-type: none"> Philippine companies that conduct waste minimization and consequently improve productivity are increased in the target sectors. 	<ul style="list-style-type: none"> Productivity (energy consumption, water consumption, raw material inputs per output) is increased in the target industry sectors. 	<ul style="list-style-type: none"> Actual monitoring of industry performance indices of the target sectors 	<ul style="list-style-type: none"> Global economic downturn is abated.
<p>Project Purpose</p> <ol style="list-style-type: none"> Company CEOs / senior managers' recognition of value of waste minimization is increased. Waste minimization activities are institutionalized through active involvement of industry associations. 	<ol style="list-style-type: none"> More than 50% of the company CEOs / senior managers who attended the workshops committed and/or recognized value of waste minimization in their companies is increased. Implementation of the industry-wide waste minimization action plans is monitored by the industry associations by January 2004. 	<ol style="list-style-type: none"> Responses to questionnaire to company CEOs / senior managers at the workshops Interview with the industry associations 	<ul style="list-style-type: none"> Win-win options (feasible measures to reduce waste and improve productivity) exist.
<p>Outputs</p> <ol style="list-style-type: none"> Sixty (60) to eighty (80) business executives / owner – entrepreneurs from Manila and Cebu are oriented to waste minimization approaches and benefits. At least twenty (20) additional business executives of Philippine companies strongly supports waste minimization for productivity improvement. At least two business association / organization's role to sustain waste minimization program is strengthened. At least four model companies have implemented successful waste minimization programs as shown by reduction of waste volumes and economic savings in operations. Waste minimization guidebooks based on the experiences of the pilot project are published (1,000 copies) and disseminated to owners of Philippines companies. Establishment of the government award system for companies that conducted IEM rigorously is included in the national IEM Action Plan. 	<ol style="list-style-type: none"> Sixty (60) to eighty (80) business executives / owner – entrepreneurs from Manila and Cebu recognized WM approaches and benefits at the waste minimization workshops. At least twenty (20) additional Philippine companies establish company wide waste minimization teams by June 2003. At least two industry associations prepare an industry wide waste minimization action plan by June 2003. At least four model companies have implemented successful waste minimization programs as shown by reduction of waste volumes and economic savings in operations by June 2003. One thousand copies of the guidebooks are published by July 2003, and 500 copies are disseminated to owners of Philippines companies by Aug. 2003. Establishment of the award system is integrated into the national IEM Action Plan. 	<ol style="list-style-type: none"> Attendee lists and feedback forms of the workshops Interview with company CEOs / senior managers at the end of the project Sector-wide waste minimization plan Report on the waste minimization activities Feedback forms included in the guidebook returned to PBE IEM Action Plan document 	<ul style="list-style-type: none"> The owners of the Philippine companies read the waste minimization guidebook.

Annex 5-1

<p>Activities:</p> <p>0-1. PBE establishes a project steering committee (SC) 0-2. SC confirms the project activities 0-3. SC monitors the project activities 0-4. SC evaluates the outputs</p> <p>1-1. SC selects target industry sectors 1-2. PBE and ITDI prepare and conduct a workshop to provide necessary information to start waste minimization activities. Participating companies attend the workshop at the beginning of the project 1-3. PBE and ITDI prepare and conduct a workshop to provide information about benefits gained from waste minimization activities. Participating companies attend the workshop at the end of the project.</p> <p>2-1. Target industry associations select 5 participating companies in each sector and coordinate with them for company visits by PBE, ITDI and JICA Study Team. 2-2. PBE, ITDI and JICA Study Team conduct company waste assessment of the participating companies and prepare proposals on waste minimization. 2-3. PBE and ITDI submit the proposals to participating companies and have discussions with model companies for implementation of the activities proposed.</p> <p>3-1. PBE holds discussions with the target industry associations on preparation of industry-wide waste minimization action plans (period of three years). 3-2. Target industry associations coordinate with member companies for preparation of industry-wide waste minimization action plans. 3-3. SC provides a framework of the industry-wide waste minimization plan. 3-4. Target industry associations adopt the industry-wide waste minimization plan.</p>	<p>Inputs</p> <p>“PBE”</p> <p>i. Office space i. Office supply i. Communication and transportation</p> <p>“JICA”</p> <p>1. Hiring consultants 1-1. Japanese experts for waste assessment and preparation of proposals on waste minimization and monitoring (3 M/M) 1-2. Local experts waste assessment and preparation of proposals on waste minimization (for 20 companies) 1-3. Local writer/designer for the guidebook (about 60 pages) 1-4. Local experts for review of the past waste minimization projects (for 30 companies) 1-5. Local experts for lectures at the first workshop (12 man-days) 1-6. Local experts as speakers at the closing seminar (10 man-days)</p> <p>2. Hiring project staff 2-1. Local staff for project management, guidebook preparation, and seminar/workshop and information campaign (Project Director 2.3M/M, Project Manager 7M/M, Project Assistant 7M/M, Finance Officer 2.3M/M, Clerk 7M/M)</p> <p>3. Direct Expenses 3-1. Start-up workshop venues (3-day workshops * 2 venues for 50 pax.) 3-2. Closing workshop venues (1-day workshop * 2 venues for 50 pax.) 3-3. Publication of a guidebook (1,000 copies) 3-4. Travel expenses for workshops and company on-site visits 3-5. Meeting venues for Steering Committee, meeting with industry associations, BOI’s policy dialogue (total 160 person-times)</p>	<p>1. Industry associations can identify participating companies. 2. Feasible measures to reduce waste are identified for the model companies. 3. Target company CEOs / senior managers attend the workshops.</p> <p>Pre-conditions</p> <p>1. Project implementing body is selected. 2. Industry associations showing strong interests in promoting waste minimization exist.</p>
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<p>Activities(continued):</p> <p>4-1. SC selects model companies in their industry sector.</p> <p>4-2. Model companies establish an internal waste minimization committee to manage the pilot project.</p> <p>4-3. Model companies implement measures in the proposal prepared in 2-2.</p> <p>4-4. ITDI support and monitor the company-wide waste minimization committee to implement the activities.</p> <p>4-5. ITDI prepares document process of the planning and progress of the implementation of company waste minimization action plan.</p> <p>4-6. Model companies evaluate results of the measures based on the documents prepared in 4-5.</p> <p>4-7. Model companies share their experiences at the closing workshop.</p> <p>5-1. PBE prepares a framework of a waste minimization guidebook, which is discussed at the SC meeting.</p> <p>5-2. Writers and artists produce manuscript of the guidebook.</p> <p>5-3. JICA Study Team provides results of the review of past waste minimization projects as input to the guidebook.</p> <p>5-4. PBE presents a draft guidebook at the SC meeting and finalize it based on the discussions with the model companies.</p> <p>5-5. PBE prints 1000 copies of the guidebook.</p> <p>5-6. PBE distribute 500 copies of the guidebook, and BOI and its institutional partners distribute the remaining 500 copies.</p> <p>6-1. BOI hold policy dialogues with industry associations on IEM promotion including appropriate award system.</p> <p>6-2. BOI prepares a plan to establish an award system and presents it to SC.</p> <p>6-3. SC adopts the plan and recommends BOI to integrate it into the national IEM Action Plan.</p>		
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5.2 PDM for IEM Information System Pilot Project

Project Area: Luzon and Visayas

Target Group: Philippine companies and ESPs

Duration: November 2002-July 2003 Date: June 2, 2003

Annex 5-4

Narrative Summary	Objective Verifiable Indicators	Means of Verification	Important Assumptions
<p>Overall Goal</p> <ol style="list-style-type: none"> More companies obtain useful IEM information from the integrated IEM information system to promote IEM. Environmental service providers (ESPs) expand their business chances through the integrated IEM information system. Industries can participate in the seminars relevant to IEM in a more planned manner through utilizing the integrated IEM information system. 	<ol style="list-style-type: none"> Average 100 visits of the IEM Knowledge Network per month are counted by June 2004. More than 30 % of ESPs that put advertisement on the IEM Knowledge Network expand their business chances by June 2004. More than 30 % of the participants to seminars relevant to IEM evaluate that the integrated IEM information system is helpful to plan attending the seminars by June 2004. 	<ol style="list-style-type: none"> Tracking of users of the IEM Knowledge Network by a special small popup window Feedback from the ESPs at the policy dialogue with BOI Feedback from participants of the seminars 	<ul style="list-style-type: none"> The IEM Knowledge Network is continuously updated and improved.
<p>Project Purpose</p> <ol style="list-style-type: none"> Activities to coordinate and improve information useful to promote IEM are initiated. Information useful to promote IEM is provided in more understandable and applicable manner to Philippine companies with low technical expertise. 	<ol style="list-style-type: none"> The Editorial Committee of the IEM Knowledge Network is established and starts its activities by August 2003. More than 30% of the users of the IEM Knowledge Network evaluates that IEM information provided through the network is more understandable and applicable than before by June 2004. 	<ol style="list-style-type: none"> Record of the Editorial Committee meetings. Sample survey at seminars organized by PBE 	<ul style="list-style-type: none"> The Editorial Board of the IEM Knowledge Network fulfills its responsibility.
<p>Outputs</p> <ol style="list-style-type: none"> Framework of an integrated IEM information system (institutional and financial arrangement to support the maintenance as well as continuous improvement and updating of the information useful to promote IEM) is prepared for an input to the national IEM Action Plan. An integrated IEM information web site is developed and its service is commenced. Partnership between BOI and ESPs is initiated. 	<ol style="list-style-type: none"> Framework of an integrated IEM information system is prepared and integrated into the national IEM Action Plan by July 2003. An integrated IEM information web site is developed and its service is commenced by June 2003. Needs and concerns to promote ESPs are identified by BOI by July 2003. 	<ol style="list-style-type: none"> Framework documents and the contents of the IEM Action Plan Web site Record of the policy dialogues 	<ol style="list-style-type: none"> Resources necessary for the realization of the framework are secured. Enough number of IEM information users and providers are utilizing the IEM information web site

<p>Activities</p> <p>0-1. PBE establishes a steering committee (SC) to plan and manage the project</p> <p>0-2. SC confirms the pilot project activity plan</p> <p>0-3. SC monitors the project activities</p> <p>0-4. SC evaluates the project outputs</p> <p>1-1. BOI establishes a working group (WG) to discuss issues of and needs for IEM information</p> <p>1-2. WG and SC identify needs of IEM information users and possible information providers' response</p> <p>1-3. WG and SC prioritize necessary actions to better coordinate and improve IEM information</p> <p>1-4. WG and SC identify best financial and institutional arrangements for the implementation of the actions</p> <p>1-5. SC approves a framework of the integrated IEM information system.</p> <p>2-1. PBE prepares a framework of the IEM information web site, and SC approves the framework.</p> <p>2-2. PBE develops a site structure.</p> <p>2-3. PBE prepares contents including database for the integrated IEM information web site.</p> <p>2-4. PBE uploads the contents of the IEM information web site.</p> <p>2-5. PBE plans and conducts a panel presentation at the Environment Exhibit</p> <p>2-6. PBE plans and conduct a seminar on the IEM information web site to orient industry people on how to obtain information useful to IEM.</p> <p>2-7. PBE and BOI and its institutional partners encourage ESPs to utilize the web site at the seminar on the IEM information web site and other relevant occasions.</p> <p>2-8. PBE maintain and update the web site.</p> <p>3-1. SC identifies target environmental service providers (ESPs).</p> <p>3-2. BOI convenes policy dialogues with ESPs.</p> <p>3-3. BOI summarizes inputs for BOI policy formation to promote ESPs businesses.</p>	<p>Inputs</p> <p>“PBE”</p> <ol style="list-style-type: none"> Office space Office supply <p>“JICA”</p> <ol style="list-style-type: none"> Hiring consultants <ol style="list-style-type: none"> Local experts for web design (20 pages) and training of PBE staffs on the web page (4 days) Hiring project staff <ol style="list-style-type: none"> Local staff for project management, website and database development, and panel and seminar preparation (Project Director 1.3 M/M, Database Manager 7M/M, Project Assistant 15 M/M, Encoders 12 M/M) Direct Expenses <ol style="list-style-type: none"> Web hosting and on-line access for 21 months Domain registration for 2 years Communication costs for 16 months Update and maintenance of the information web site for 12 months Panel preparation for the Environment Exhibit Computer hard & soft ware for the information web site operation (1 PC and software, 1 server, 1 printer) Venue for a seminar on the integrated IEM information system (100 pax x 1 time) Meeting costs for IEM information working group and project steering committee (total 110 time-person) 	<ul style="list-style-type: none"> ESPs are willing to commit their time to have policy dialogue with BOI. <p>Pre-conditions</p> <ul style="list-style-type: none"> Implementing body of the project is identified.
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5.3 PDM for Ecolabeling and Green Procurement Pilot Project

Project Area: Luzon and Visayas

Target Group: ELP body and BOI

Duration: November 2002 – July 2003

Date: June 11, 2003

Annex 5-6

Narrative Summary	Objective Verifiable Indicators	Means of Verification	Important Assumptions
<p>Overall Goal</p> <ul style="list-style-type: none"> Development and marketing of eco-products (less environmental impact) are promoted. 	<ul style="list-style-type: none"> Sales of eco-labeled products within the same product category is increased by 10% by July 2005. 	<ul style="list-style-type: none"> Statistics of eco-labeled products prepared by Secretariat of the ecolabeling program 	<ul style="list-style-type: none"> Ecolabeling program is self-sustained.
<p>Project Purpose</p> <ol style="list-style-type: none"> Ecolabeling program is established. Development and adoption of green procurement policy is promoted. 	<ol style="list-style-type: none"> Establishment of the ecolabeling program is publicly announced by June 2003. At least one government agency other than BOI adopts green procurement policy by June 2004. 	<ol style="list-style-type: none"> Newspapers Interview with government agencies 	<ul style="list-style-type: none"> Consumers' environmental consciousness is high enough to prefer eco-labeled products rather than non-ecolabeled products.
<p>Outputs</p> <ol style="list-style-type: none"> A strategic plan on the establishment of the ecolabeling program is adopted. Product criteria are developed for two product categories. System to accept applicants for ecolabeled products is established. The first eco-labeled product is accredited. Awareness of consumers and industries toward ecolabel is increased. BOI adopts green procurement policy and action plan. BOI is ready to apply for ISO14001 certification. 	<ol style="list-style-type: none"> A strategic plan on the establishment of the ecolabeling program is adopted by the ELP Board by July 2003. Product criteria for two product categories are adopted by the ELP Board by August 2003. Operation guideline is developed by June 2003. At least one product is accredited for ecolabel by March 2003. Accumulated 1,000 people either participated seminars at which the Green Choice Philippines was presented or received the Green Choice Philippines leaflet by July 2003. Green procurement policy and action plan including targets are adopted by BOI by July 2003. Necessary documents for BOI's ISO 14001 application are complied by July 2003. 	<ol style="list-style-type: none"> Strategic plan document ELP Board decision on the product criteria Operation guideline document Ecolabeled products Attendance sheets of relevant seminars and the sending list of the leaflet BOI board decision on the adoption of the policy and action plan Documents 	<ul style="list-style-type: none"> BOI and other government agencies commit to adopt green procurement policy.

<p>Activities</p> <p>0-1-C&GF establishes a steering committee (SC) to plan and manage the project.</p> <p>0-2- SC confirms the pilot project activity plan.</p> <p>0-3-C&GF and JICA Study Team conduct workshops on the ecolabeling program and green procurement policy for capacity building of the ELP body.</p> <p>0-4- SC monitors the project activities.</p> <p>0-5- SC evaluates the project outputs.</p> <p>1-1. C&GF prepares a draft master plan.</p> <p>1-2. C&GF present the draft master plan to SC.</p> <p>1-3. C&GF finalize the master plan based on the comments from SC.</p> <p>1-4. ELP Board adopts the master plan.</p> <p>2-1. ELP Board select target product categories for the product criteria to be developed.</p> <p>2-2. C&GF establish Technical Working Groups (TWG) for the development of product criteria.</p> <p>2-3. C&GF collects information on the target product criteria.</p> <p>2-4. TWG discuss possible product criteria.</p> <p>2-5. JICA Study Team provides advice to the draft criteria.</p> <p>2-6. Technical Committee adopts the draft product criteria.</p> <p>2-7. ELP Board adopts the product criteria.</p> <p>3-1. C&GF prepares a draft operation guideline.</p> <p>3-2. JICA Study Team provides advice on the operation guideline.</p> <p>3-3. C&GF propose the revised operation guideline to the BLP Board.</p> <p>3-4. BLP Board adopts the operation guideline.</p> <p>4-1. C&GF contacts the companies that produce products for which the product criteria are adopted for possible ecolabel application.</p> <p>4-2. ELP body processes and approves the ecolabel application.</p>	<p>Inputs</p> <p>“Clean and Green Foundation”</p> <ol style="list-style-type: none"> 1. Project staff (Project Director and messenger) and consultants 2. Office space and facilities 3. Office supply 4. Transportation and communication costs <p>Inputs</p> <p>“JICA”</p> <ol style="list-style-type: none"> 1. Dispatch of experts 1-1. Japanese experts for training of the Secretariat on preparation of operation guideline and of technical committee members on product criteria (0.23M/M) 2. Hiring local consultants 2-1. Local experts for information collection and analysis on product criteria and green procurement policies in other countries 2-2. Local experts for document preparation and staff training for BOI application for ISO 14001 3. Direct Expenses 3-1. Workshop for ELP body (55 pax *2 days) 3-2. Ecolabel program launching and presentation of product criteria events (100 pax * 2 times) 3-3. Announcement on newspapers (2 papers) 3-4. Technical Committee / Working Group / ELP Board Meeting venues (total 138 member-times) 3-5. Steering Committee meeting venue (total 30 member-times) <p>“UNDP”</p> <ol style="list-style-type: none"> 1. Project staff (Project Manager, Project Officer, Technical Assistant) 2. Ecolabeling program launching venue (PHP50,000) 	<ul style="list-style-type: none"> • Industries apply for ecolabeled products. <p>Pre-conditions</p> <ul style="list-style-type: none"> • Implementing body is selected. • Directors of other sections of BOI are supportive for their staff involving the preparation of green procurement policy, action plan, and ISO 14001 application.
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<p>Activities(continued)</p> <p>5-1. C&GF holds a launching event to inform industry and the society of the ecolabeling program.</p> <p>5-2. C&GF puts newspaper ad on the ecolabeling program.</p> <p>5-3. C&GF presents the ecolabeling program at the Environment Exhibit and the 4th EMPOWER seminar.</p> <p>5-4. C&GF holds an event to present new product criteria (polyethylene packaging and household batteries).</p> <p>6-1. BOI forms an internal working group to discuss the BOI's green procurement policy and its action plan.</p> <p>6-2. Local consultants hired by JICA Study Team collect information about other countries' practices in green procurement.</p> <p>6-3. BOI prepares a draft green procurement policy and action plan.</p> <p>6-4. JICA Study Team provides advice on BOI's policy and action plan.</p> <p>6-5. BOI adopts the green procurement policy and action plan.</p> <p>6-6. BOI presents its green procurement policy at the Environment Exhibit and the 4th EMPOWER seminar.</p> <p>7-1. BOI forms an internal working griup to prepare for BOI's application for ISO 14001.</p> <p>7-2. Local consultants hired by JICA Study Team train BOI's staff and review the relevant documents.</p> <p>7-3. BOI prepares necessary documents for ISO14001.</p>		
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Annex 6

Waste Minimization Pilot Project

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ANNEX 6.1

6.1. Minutes of the Waste Minimization Pilot Project Meetings Steering Committee

6.1.1. The First Meeting (November 21, 2002)

ATTENDEESS

1.	Mr. Tad Tanaka	JICA Study Team Member
2.	Ms. Kaoru Oka	JICA Study Team Member
3.	Mr. Marly Cardenas	JICA Study Team Member
4.	Ms. Priscilla P. Rubio	JICA Study Team Member
5.	Ms. Raquel B. Echague	BOI
6.	Mr. Christopher M. Silverio	DOST-ITTDI
7.	Ms. Lisa C. Antonio	PBE
8.	Ms. Wini Y. Villanueva	PBE
9.	Mr. Hermes D. Baustita, Jr.	PhoMA
10.	Mr. Napoleon J. Tanganco	PhoMA
11.	Ms. Leonor D. Abella	PHILEXPORT
12.	Ms. Ma. Flordeliza C. Leong	PHILEXPORT
13.	Mr. Victor Pascual	PULPAPEL
14.	Ms. Teresita B. Corpuz	SPIK
15.	Ms. Domingo J. Perez	SMC

DISCUSSION HIGHLIGHTS

Welcome and Introduction

The initial meeting of the WMPP was held on November 21, 2002 at BOI, Makati City. It was Ms. R. Echague who had presided over. The attendees introduced themselves and gave a brief background of their organization and roles in the Project. The associations present at the meeting represented the paper, chemical, foundry, and food (export) sectors.

Ms. K. Oka gave a brief overview of the EMPOWER Project, after which Ms. L. Antonio explained the objectives and key activities for the WMPP.

Regarding the Selection of Partner Industry Associations

Ms. L. Antonio clarified that these were invited because of their strong interest in WM based on their

BA21 and other activities. She explained that they played a strong advocacy role for WM and can help to identify member companies which are interested to implement WM.

Ms. L. Antonio and Ms. K. Oka added that large companies like San Miguel Corporation (SMC) are industry leaders which can also serve as WM models. The participation of the SMC was sought because of its recent tie-up with Kirin Brewery.

Regarding the Identification of Participating Companies and Tentative Scheduling of Plant Visits

Upon Mr. H. Bautista's inquiry, the group discussed whether the model companies for the project should be a top model or bottom model. Top model companies refer to those with EMS or ISO 14001 certification whereas bottom models are those who need to address several environmental problems i.e. "the lost sheep." They noted that given the short time, there should be a quick success which the Project can build upon. The company should have started something (on WM effort), which can be reinforced. Mr. H. Bautista stressed that the number one criteria would be the willingness of the company, to which the group agreed. It was also pointed out that a company with previous EM initiative would have some data available on its waste streams, which is needed at the start of the Project.

Mr. D. Perez expressed concern over whether the model companies will be identified in the WM guidebook, Ms. L. Antonio replied that this was not yet been decided/finalized yet. However, because the guidebook would be an educational and training tool and company would be a demonstration model, they should be willing to share their experience and information.

Ms. T. Corpuz inquired on the type of waste to be assessed, especially if it is hazardous waste. She stressed that confidentiality is a great issue when it comes to disclosing data/information on the waste generated by a company, and that the waste assessments should take special note of this type of waste from the chemical industry.

The group thus arrived at the following criteria for selecting the participating companies: (1) strong management commitment (e.g. environment-policy); (2) willingness to share and showcase their experience; (4) willing to be visited by a team of WM experts from JICA and DOST; (4) preferably but not only, (5) Filipino-owned; (6) manufacturing sector.

Ms. L. Antonio also suggested that the associations identify participating companies from Cebu.

Regarding the mechanics for inviting the participating companies

PBE will send the formal invitation for the ocular visits in December after the association has verbally notified the company and PBE. The letter will describe benefits of participation in the Project (e.g. training and experts at no cost, plus long-term benefits of being able to minimize company's waste). It will also request the companies to provide general company information (major products and their production volume per year, number of employees, plant layout diagram; process information i.e. process flow, material balance flow; environmental information e.g. water and wastewater balance

flow, wastewater monitoring data, and other monitoring data), prior to ocular visits in December.

Include in the seminar success stories.

Formal Establishment of the Waste Minimization Committee

Ms. L. Antonio recommended that the WM Committee be composed of those present, namely, BOI, PBE, DOST, JICA Study Team, the four industry associations, to which everyone agreed.

The next meeting of the WMPP Committee will be in January, 2003, but no date was specified.

The meeting was adjourned at 4:30 p.m

CONCLUSION

The WMPP Committee has been established. The participating industry associations are: Chemical Industries Association of the Philippines/SPIK (chemical sector), Philippine Exporters Confederation, Inc./PHILEXPORT (food sector), Philippine Metal Casting Association/PhoMA (foundry sector), and Pulp and Paper Manufacturers Association, Inc./PULPAPEL (paper sector). Participating companies for the Project will be identified based on the agreed criteria, contacted by the associations and formally invited by PBE. Some of them will be scheduled for ocular visits from December 2-6.

6.1.2. 2nd Waste Minimization Committee (February 7, 2003)

ATTENDEES

- | | | |
|-----|-----------------------------|--|
| 1. | Mr. Tad Tanaka | JICA Study Team Member |
| 2. | Dr. Marly Cardenas | JICA Study Team Member |
| 3. | Ms. Priscilla P. Rubio | JICA Study Team Member |
| 4. | Ms. Helen S. Casio | representing Ms. Raquel B. Echague, BOI |
| 5. | Mr. John Erwin Furagganan | BOI |
| 6. | Ms. Belinda Villanueva | representing Dr. Christopher M. Silverio, DOST-ITDI |
| 7. | Ms. Lisa C. Antonio | PBE |
| 8. | Ms. Wini Y. Villanueva | PBE |
| 9. | Mr. Hermes D. Bautista, Jr. | Philippine Metalcasting Association, Inc. (PMAI) |
| 10. | Mr. Napoleon J. Tanganco | PMAI |
| 11. | Ms. Ma. Flordeliza C. Leong | representing Ms. Leonor D. Abella, Philippine Exporters Confederation, Inc. (PHILEXPORT) |
| 12. | Mr. Reynaldo A. Gomez | representing Mr. Victor Pascual, Pulp and Paper Manufacturers Association, Inc. (PULPAPEL) |
| 13. | Ms. Teresita B. Corpuz | Chemical Industries Association of the Philippines/SPIK |

AGENDA

1. Review of the Minutes of the November 21, 2003 Initial Meeting
2. WMPP Progress Updates
3. Selection of Model Companies
4. Next Steps:
 - a. Industry Sector Waste Minimization Action Plan
 - b. WM Plan Implementation
 - c. WM Guidebook Outline
5. Other Matters

DISCUSSION HIGHLIGHTS

Welcome and Introduction

The second WMPP SC meeting was held on February 7, 2003 at BOI, Makati City. It was presided over by L. Antonio. The attendees introduced themselves and the industry association or agency they are representing. The associations present at the meeting represented the paper, chemical, foundry, and food (export) sectors.

Review of the minutes of the previous meeting

The Minutes of the November 21, 2002 meeting were reviewed and approved with minor corrections as follows: (a) PHIMA changed to PMAI; (b) ITTDI changed to ITDI.

WMPP Progress updates

W. Villanueva presented progress updates of the WMPP among the highlights of which were: the selection of 20 participating companies, the conduct of the WMPP Seminar in Manila and Cebu (with 102 participants), and the ongoing conduct of rapid waste assessment in the companies by the WM experts from JICA and DOST-ITDI. (See attached.)

Selection of model companies

T. Tanaka expressed that JICA Study Team will provide him their comments/suggestions by Sunday and that they will make their nominations by Wednesday or Thursday (since Tuesday is a Japan National Holiday for the JICA Study Team members). He proposed however that, at the moment, attendees of the meeting can come up with potential candidates, which will be conveyed/compared to those from the JICA Study Team.

L. Antonio recalled that criteria for selection of the 20 companies included the following: willingness, Filipino-owned, representing one of the four sectors, and SMEs. The selection of the four model companies would be guided further by the Waste Assessment findings. However, the candidates should be willing to share information to other companies, as showcase models.

L. Leong inquired whether there can be two model companies from the food sector, one from processed food and one from fresh foods. L. Antonio however expressed that if the food sector will be granted with such request then one sector will be deprived of a slot since the Project can only accommodate four model companies.

She then invited the group to declare their nominations. T. Corpuz expressed that they are not in the position to select since they were not present during the plant visits. But L. Antonio asked her to at least to share information on willingness of the companies.

For the Chemical Sector, T. Tanaka noted that Phil. Resins Industries, Inc. is very organized under the Japanese parent company Tosoh Corporation and Mitsubishi Corporation. Int'l Chemical Industries is ISO certified to 9000 and 1400 but still struggling to minimize emissions and toxic waste. L. Antonio expressed that if a company is already very good it may not be representative of a typical company situation and may not be first choice as demo model.

B. Villanueva said that DOST recommended Kemwerke, Inc. which is small in size with much room for improvement. It has several products and uses many different raw materials; the management is also very committed. The group concurred with this.

For the Paper Sector, R. Gomez said that Container Corporation of the Philippines (CCP) is very much willing to be a model company. They are aiming for zero waste and have always been open to inviting other companies to their facilities. He admitted though that they still have problems with what to do with the sludge and odor. L. Antonio noted the company's willingness to invest.

T. Tanaka mentioned that CCP's location is not as with Noah's Paper Mills, Inc. because it is located next to a creek. Noah's also has similar problems like CCP and thus either could be the model company. Aclem Paper Mills, Inc. was not as interested as those two.

For the Food Sector, B. Villanueva suggested TSB Enterprises, Inc. T. Tanaka volunteered that Basic Fruits Corp. (BFC) had a wastewater problem. He also expressed that like TSB and BFC, Jo-na's (International Phils., Inc.) concern is wastewater with high BOD from processing of fruits. Jo-na's management however has strong commitment to environmental protection and the company would make a good model. Eldon Industrial Corp., on the other hand, had intermittent production and was not operating during the on-site visit. Workers were just labeling the product.

For the Foundry Sector, B. Villanueva recommended Acetech Metal Industries Corp. T. Tanaka, however expressed that Metal Engineering Resources Corp. (Metercor) can also be a candidate, in terms of willingness to share with the other companies.

H. Bautista informed the group that both of them are ferrous companies like the Cebu Iron Foundry Corp. also. Only San Gabriel Enterprise (foundry in Cebu) is copper based. Metercor is larger than Acetech, has a more accessible location and a larger cupola. Both have problems with emission.

Next steps

Waste Minimization Plan Implementation

For Waste Minimization Implementation, L. Antonio clarified that this will be from March to May. B. Villanueva said that the DOST experts will make a minimum two company visits per month. PBE will need a progress report after each visit. Once the model companies are identified, a first meeting should be scheduled with them and the DOST expert immediately to agree on the Work Plan/Schedule of visits and outputs.

T. Corpuz inquired about the communication/coordination process. She suggested to have parallel communication, that PBE furnish the Industry Association with a copy of the communication to the company. She also expressed interest in giving comments through DOST.

Industry Sector Waste Minimization Action Plan

L. Antonio explained that EMPOWER would like them to think about how they would use the model companies in their future Waste Minimization Advocacy Plans and Programs over the next three years. Each association representative was provided with the draft Industry Sector Waste Minimization Action Plan for comment. In the outline, four areas for Actions were identified, as follows: Advocacy, Technology Transfer, Information/Education and Training.

L. Antonio suggested that for Philexport, they could start with a Waste Minimization Plan for the food sector first, to which L. Leong concurred.

Regarding technology transfer, N. Tanganco asked if this referred to sharing of technology among the companies or from Japan through JICA. T. Tanaka answered that it would be more of sharing of best practices/technologies among the companies, but that technology assistance from Japan or from the region may also be considered.

Other activities were mentioned by the association which L. Antonio advised they can include in their plans such as echo-seminars by PMAI, development of an experts pool by Philexport and advocacy initiatives of PULPAPEL. R. Gomez shared with the group copies of a brochure already prepared by PULPAPEL affirming their vision and commitment to the environment.

Waste Minimization Guidebook

L. Antonio asked the group for comments on the attached proposed Waste Minimization Guidebook. She clarified that Part IV will be a general process flow chart. Details such as whether there will be pull-out section for each sector could be determined later. This one is still generic.

N. Tanganco suggested that the guidebook, identify waste sources and how to utilize waste (e.g. grinding waste from the Foundry Sector).

P. Rubio encouraged the DOST expert to help the company identify the appropriate technology

options, which can be later included in the Guidebook.

T. Corpuz inquired about the target date, to which L. Antonio replied that the Guidebook has to be prepared by June 2003, when the Project also ends.

Other matters

J. Furagganan raised clarification about the monitoring mechanism. T. Tanaka clarified that this will be done by the assigned DOST expert to the company who will assist the company to prepare proper monitoring report to PBE after each visit of the DOST expert.

N. Tanganco inquired whether laboratory analysis and measurements can be accommodated by the project. B. Villanueva replied that DOST could do this, but that they charged a fee.

T. Corpuz inquired whether there would be some tax exemptions for the companies. M. Cardenas explained that BOI has such incentives but companies must be able to demonstrate marginal increase in production benefit to avail of this. It is just a matter of justifying. He said that it is one of the issues the EMPOWER IEM Framework will address.

J. Furagganan also inquired on the status of the Industry Award System. P. Rubio clarified that in the last EMPOWER Steering Committee (SC) Meeting, OIC C. Halili said she would still take this matter up to the BOI management and then give feedback to the SC. At the moment, they were looking into a Presidential Award for which LLDA, DENR, and BOI will coordinate to come up with one award system.

Next meeting was set on March 7, 2003, 2:00-4:00 at the BOI.

CONCLUSIONS

The SC was updated on the progress of the WMPP and identified candidate companies for the Waste Implementation, for each sector as follows: Kemwerke (for Chemical); Jo-na's or TSB (for Food); Acetech or Metercor (for Foundry); CCP or Noah's (for Paper). The final selection of model companies will be in mid February, after T. Tanaka has communicated the recommendations of the JICA experts. The model companies will be assisted by the DOST experts who will make two visits per month to the companies and submit a progress report to PBE after each visit. The SC also discussed the proposed outline for the Industry Sector Waste Minimization Action Plan and Waste Minimization Guidebook.

6.1.3. 3rd Waste Minimization Committee (April 2, 2003)

ATTENDEES

1. Dr. Marly Cardenas JICA Study Team Member
2. Ms. Priscilla P. Rubio JICA Study Team Member

3.	Ms. Raquel B. Echague	BOI
4.	Mr. John Erwin Furagganan	BOI
5.	Dr. Christopher M. Silverio	DOST-ITDI
6.	Ms. Lisa C. Antonio	PBE
7.	Ms. Lloly Y. De Jesus	PBE
8.	Ms. Wini Y. Villanueva	PBE
9.	Mr. Hermes D. Bautista, Jr.	Philippine Metalcasting Association, Inc. (PMAI)
10.	Mr. Napoleon J. Tanganco	PMAI
11.	Mr. Reynaldo A. Gomez	representing Mr. Victor Pascual, Pulp and Paper Manufacturers Association, Inc. (PULPAPEL)
12.	Ms. Maricel C. Santos	representing, Ms. Teresita B. Corpuz, Chemical Industries Association of the Philippines/SPIK
14.	Mr. Vicente Lim	PCCI

AGENDA

1. Review of the Minutes of February 7 Meeting
2. Review of WMPP PDM/February-March Progress Report
3. WMPP Progress Updates
 - a. Consolidated Report of WM Assessment
 - b. Model Companies Selected & Updates on their First two visits
 - c. WM Plan Implementation Update
 - d. WM Guidebook (first draft)
4. Presentation of Industry Sector WM draft Action Plan by Industry Associations
5. Next steps
6. Other matters
 - a. Discussion on the award system
 - b. Announcement on the EMPOWER Exhibit on June

DISCUSSION HIGHLIGHTS

Welcome and Introduction

L Antonio welcomed everyone to the meeting and asked the group to reintroduce themselves for the sake of those attending the Steering Committee (SC) meeting for the first time. She then presented the agenda which was adopted without changes by the group.

Review of February 7 Meeting Minutes

L Antonio asked for comments on the February 7 meeting minutes. R. Echague corrected the name of the BOI representative as Helen Casco. M Cardenas asked that paragraph no. 27 be corrected to refer to the IEM Action Plan (in lieu of Framework). With no other changes, R Echague moved for approval of the minutes and was seconded by M. Cardenas. L Antonio then turned over to the WMPP Project Manager, L De Jesus, for the updates.

Progress Update, February – March

Re WMPP Outputs

i) WM Assessment Consolidated Report

L De Jesus reported that WM Assessment reports for the four model companies were almost completed and that DOST was to revise the drafts of the remaining reports for the 16 other companies by Friday, April 11.

Noting that there was a rather large gap of time between the conduct of the on-site waste assessment and the submission of the findings and recommendations to the companies, C. Silverio lamented about the delays in the feedback of the Japan-based JICA experts to the reports prepared by DOST, which had been forwarded to JICA on last week of February (2nd batch of reports) and first week of March (last batch of reports). R Echague shared that the EMPOWER SC had already decided in its March 31 meeting to proceed with report finalization instead of waiting indefinitely for the JICA experts' feedback, in consideration of the Project's commitment to the companies to give them feedback. L de Jesus pointed out that the companies did receive preliminary verbal feedback on the same day of the waste assessment. She also shared the good news that JICA had finally sent feedback on March 31 on the reports for two of the model companies (TSB and Noah's), and indicated they had no comment on the DOST reports for Kemwerke and Acetech. DOST is using this feedback to revise the final company reports.

M Cardenas encouraged the industry association partners to evaluate the findings and recommendations described in the consolidated report so they can use these to help design their industry-level waste min action plan with possible follow-up activities for the participating companies, especially those which were not selected as model companies. in their sector wide plan.

L de Jesus highlighted examples of such WM Assessment findings on page 2, and recommendations in Annex 2, in common areas such as wastewater and solid waste.

M Cardenas inquired if the recommendations were doable for the companies. C. Silverio replied that the team ensured that recommendations not only came from DOST but also from the workers themselves, so that these would be implementable. L De Jesus also pointed out that focus was on low-cost options.

P Rubio asked about possible benchmark data which the associations could use for developing future training plans. L De Jesus gave water use as an example, for which monitoring can show benefits from adoption of waste min practices.

M Cardenas further inquired about whether there had been enough time to identify possible cause champions for each company in the Waste Assessment phase. L de Jesus noted that the PCOs were usually the point persons, and that in many cases the company CEOs/managers were present during the Waste Assessment activity and feedback. L Antonio added that one indication could be the 31 signed company commitments to adopt waste min.

M Cardenas suggested that the report be enhanced by highlighting the driving/hindering factors for waste min, and identify which among the companies had the strongest potential for cascading their experience and organizing their efforts better through some follow-up activities which could be designed by the industry association. He reminded the group that these could be inputted to the National Industrial Environmental Management Action Plan (IEMAP) being prepared by BOI.

C. Silverio observed that many of the companies have an environmental policy, and can be encouraged to consider ISO 14001. However, L Antonio cautioned about doing so selectively since some companies may feel overwhelmed.

V. Lim inquired about the extent to which the National IEMAP was addressing the need for HRD, similar to the case of Japanese industry where there is a high level of discipline and a culture of excellence. He cited the example of consciousness of water use and wastage and the emphasis on worker well-being, health and safety. He noted that most of the assistance in the Project has been technical. M Cardenas agreed that the HR personnel should be more deliberately involved. He admitted that the DOST approach within the current project has been more on the technical side. C Silverio shared the experience of one food companies with a good WM program but employees still doing short cuts, and added that they themselves recognized the need for more worker-education efforts, perhaps on a longer term basis than what can be achieved within the limited time of the Project. M Cardenas said they will consider this angle of culture building in the April 30 Industry Consultation to which he invited everyone to attend.

N Tangangco described efforts at the company level (foundry) to elicit ideas from the workers themselves. The association also has a technical group that can assist members. But to convince other companies, he stressed the need to be able to show figures. L Antonio suggested PMAI explore maximizing partnerships in region with associations with similar objectives for the foundry sector (e.g. Philexport – Cebu).

R Gomez also shared the initiatives within the Pulp and Paper sector, which is collectively promoting a culture of efficiency and productivity through EMS. They have audited four of their member mills and six others, with assistance from a DBP project. However, only 19 out of 38 paper mills have really been cooperating.

L De Jesus will thus revise the Consolidated Report based on the above comments.

ii) WM Implementation in Four Model Companies

L. de Jesus recalled the criteria for final selection of the model companies, namely, willingness with high management commitment, Filipino-owned, representing one of the four sectors, and SMEs; and that the candidates should be willing to share information to other companies, as showcase models. The selection of the four model companies was guided further by the Waste Assessment findings. Another consideration for the selection was budget constraints or practical reason for the bi-monthly monitoring. It was limited to companies located in Metro Manila. Further/ultimate consideration was which companies needed the most assistance (especially in the case between TSB & Jo-na's, CCP & Noahs).

Thus, the selected model companies are Acetech Metal Industries Corp. (Foundry), Noah's Paper Mills, Inc. (Pulp & Paper), Kemwerke Inc. (Chemical), TSB Enterprises, Inc. (Food)

Key activities in March for all companies were echo seminars on WM, during which initial recommendations from the waste assessment were presented and discussed in a mini – workshop with the employees. They were likewise asked to formulate their own WM options. Attendees came from all departments, with usually good participation (e.g. 90% for TSB; all unit heads for Acetech; 14 voluntary but well attended for Kemwerke; 6 from Noah's)

L de Jesus explained that monthly progress monitoring would be done by DOST with two visits per month, and reports submitted to PBE for preliminary review and feedback, by the fifth day of each succeeding month. These reports will be forwarded to JICA. R Echague pointed out potential conflict in the June 6 monitoring visit schedule with the scheduled Environment Month Exhibition. The group thus agreed to adjust this monitoring date to a week after the Exhibition..

DOST will submit the March monthly reports by next week to PBE for feedback and forwarding to JICA.

iii) WM Guidebook

L. de Jesus walked the group through the various sections of the Guidebook. She explained that Section 4 will be fleshed out in May with the experience of the model companies, based on the reports of the DOST team. Electronic files of the complete draft will be sent on April 3 to the SC for comments until April 17 (before Holy Week) so that L De Jesus can revise the draft.

Some of the initial comments from the SC were as follows:

- R. Gomez suggested to focus on the recycled paper. (on p. 24)
- L de Jesus checked if it was okay for the focus on basic chemical industries for the chemical sector; and for focus on fruit processing for the food sector. V Lim suggested organizing the food sector write-up on a specific food item such as a common fruit like mangoes or bananas (e.g. in lieu of vegetables, root crops), or by differentiating firm fruits (like coconuts) from delicate fruits (like tomatoes). C Silverio also suggested emphasizing the benefits of a pre-processing stage to reduce wastewater on site. V. Lim underscored the need for “dispersal” so that waste is not concentrated in the facility. L de Jesus replied that Secn 3 captures the generic process and WM issues for the sector and that Section 4 could highlight the experience of the model company in processing a specific fruit.
- N Tanganco suggested including a brief statement about the different types of molding/melting technologies in the sector, with corresponding different environmental impacts and how to deal with them. M Cardenas remarked that this would also be a good subject for a more focused follow-up study which the association can include in its proposed action plan. But he said that the guidebook should acknowledge common impacts like air emission, and use of power.
- P Rubio asked about possible duplication with other WM guidebooks like that developed by DBP, for the pulp and paper sector. L De Jesus acknowledged these and will work more

closely with PULPAPEL to see how the EMPOWER-WMPP guidebook can add value to previous efforts, or be better disseminated. She reminded the group that for all the sectors, the WM Guidebook includes both sectoral guidelines and company-level guidelines.

- For the EMS Section, M Cardenas suggested that EMS be presented in the context of what to do after waste min, i.e. After WM, what next? Thus, the EMS write-up is to be scaled down and additional write-ups will briefly describe other IEM options such as Environmental Cost Accounting and Greening the Supply Chain, with corresponding internet/web-based references.

R. Gomez and N. Tanganco raised concerns about uncondusive policies affecting their respective sectors which make it difficult for the industries to source waste for raw materials. M Cardenas and R Echague responded that these issues could possibly be tackled within the recommendations for developing a national recycling policy under the National IEMAP.

Industry Level WM Action Plan Updates

L de Jesus recalled the approved outline for the industry sector action plan: i.e. Association Profile, Local Industry Profile, Environmental Concerns of the Industry, Environmental Policies (of the Association/Sector), Previous & Ongoing Environmental Programs (of the Association/Sector), Waste Minimization Action Plan -- Advocacy Level, Technology Transfer, Information Education and Training). H Bautista expressed concern about how the practice of “five-month contracts” in the foundry sector can undermine HRD investments. L de Jesus suggested this be captured in the policy concerns segment of the action plan. Other earlier concerns regarding sourcing of raw material can also be captured. The first draft of the Association-level Waste Min Action Plans are scheduled for presentation in the next SC meeting.

N Tanganco pointed out that most of their members are small and their action plan needs to identify simple, doable actions, backed by demonstrable savings.

Industry Award System

Two industry consultations were held in February. A suggestion at that time was to incorporate this with the existing Philippine Quality Award (PQA) System of DTI, but R Echague explained that this was not possible without making major changes in the framework which was based on the Malcolm Baldrige Model, and seeking amendments in the approved Executive Order. She added that the PQA already incorporates environmental performance in its criteria. She also asked if this should be BOI/DTI-led.

M Cardenas agreed that there should be something unique about any new award system that will be set up. In particular, an IEM award should go beyond compliance and more into the promotion of IEM. P Rubio added that it could highlight production benefits and increased efficiency.

R Echague asked what the level of the award should be (e.g. presidential level?) P Rubio suggested tying-up with the Eco-labeling system. M Cardenas suggested focusing within BOI. R Echague

suggested recognition for the model companies during the Environment Month, in which case BOI will prepare a formal recommendation to JICA to revise the proposed award system into a recognition system for the duration of the current project. This could eventually be a stepping stone for an industry award system at a later time.

Environment Month Exhibition

R Echague informed the group that this will be on June 6 & 7 at Megamall. A theme is still being defined. JICA has contracted Events Media as events organizer. The 16 booths measuring 2m x 3m will be set up with one booth per model company. L Antonio suggested instead that the booth be assigned to the industry associations who will incorporate features from the model company. P Rubio also explained that the afternoon of June 6 will include a presentation by the model companies of their WM experience and accomplishments during the 4th EMPOWER Seminar. L Antonio requested for a copy of the tentative program and suggested that a small group meet prior to the next EMPOWER SC meeting to draft a preliminary proposal, work program and logistics checklist.

Next Step

The next meeting of the WMPP SC will be on May 8, 2 :00 to 4:00 pm at BOI.

CONCLUSIONS

The group approved the minutes of the March 5 meeting. WM Assessment reports for the four model companies and for the remaining 16 companies are to be completed by DOST and revised accordingly by April 11, for submission to the companies at the soonest possible time. For the Waste Min Implementation activities conducted in March, DOST experts will already submit the first monthly progress monitoring reports for the four model companies. The group offered suggestions for incorporation into revised drafts of both the Waste Assessment Consolidated Report and Draft WM Guidebook. The partner industry associations will prepare their first draft of the Association-level Waste Min Action Plans for presentation in the next SC meeting. Regarding the Industry Award System, BOI will prepare a formal recommendation to JICA to revise the proposed award system into a recognition system.

6.1.4. 4th Waste Minimization Committee (May 8, 2003)

ATTENDEESS

- | | | |
|----|-----------------------------|--|
| 1. | Dr. Marly Cardenas | JICA Study Team Member |
| 2. | Ms. Priscilla P. Rubio | JICA Study Team Member |
| 3. | Ms. Raquel B. Echague | BOI |
| 4. | Dr. Christopher M. Silverio | DOST-ITDI |
| 5. | Ms. Lisa C. Antonio | PBE |
| 6. | Ms. Lloly Y. De Jesus | PBE |
| 7. | Ms. Wini Y. Villanueva | PBE |
| 8. | Mr. Hermes D. Bautista, Jr. | Philippine Metalcasting Association, Inc. (PMAI) |
| 9. | Mr. Reynaldo A. Gomez | representing Mr. Victor Pascual, Pulp and Paper Manufacturers Association, Inc. (PULPAPEL) |

10. Ms. Teresita B. Corpuz Chemical Industries Association of the Philippines/SPIK
11. Ms. Ma. Flordeliza C. Leong representing Ms. Leonor D. Abella, Philippine Exporters Confederation, Inc. (PHILEXPORT)

AGENDA

1. Review of the Minutes of April 2 Meeting (Attached)
2. March-April Progress Report (Attached)
3. WMPP Progress Updates
 - a. WM Plan Implementation Update on Model Companies
 - b. Revised Consolidated Report of WM Assessment (Attached)
 - c. WM Guidebook Updates (Attached)
4. Presentation of Industry Sector WM draft Action Plan by Industry Associations
5. Discussion of the Presentation Designs (Attached)
 - a. WMPP Closure Workshop
 - b. EMPOWER Exhibition on Environment Month/4th EMPOWER Seminar
6. Other matters

DISCUSSION HIGHLIGHTS

Welcome

L. Antonio welcomed everyone to the meeting. She then presented the agenda which was adopted without changes by the group.

Review of April 2 Meeting Minutes

L. Antonio asked for comments on the April 2 meeting minutes. W. Villanueva spotted two minor corrections to be made: (1) on paragraph #18, change though to through; and (2) on paragraph #28, change March 5 to February 7. With no other changes, L. De Jesus moved for approval of the minutes and was seconded by M. Cardenas. L. Antonio then turned over to the WMPP Project Manager, L. De Jesus, for the updates.

Progress Update, March-April

Revised WM Assessment Consolidated Report

L. De Jesus reported that the following revisions were made on the WM Assessment Consolidated Report:

- a. M. Cardenas suggestion was inputted: that the report be enhanced by highlighting the driving/hindering factors for waste min, and identify which among the companies had the

strongest potential for cascading their experience and organizing their efforts better through some follow-up activities which could be designed by the industry association.

- b. Section on the methodology was included.

H. Bautista suggested to also consider including an officer of the labor union in the proposed WM team of a company. He further corrected the spelling of “slug” as “slag”.

With these revisions, L. Antonio asked for the acceptance of the revised WM Assessment Consolidated Report which the Committee concurred. The Report shall be sent to the Industry Associations for guide in developing their WM Industry-Level Action Plan. All Waste Assessment Reports have been submitted by the DOST team, but only 8 have been submitted to the companies. The remaining reports will be reviewed and revised by next week.

WM Plan Implementation Update on Four Model Companies

L. De Jesus shared the monthly progress monitoring reported by DOST, as follows:

- a. For Acetech, the company organized the WM team, formulated additional WM options, and implemented WM options to change refractory brick lining of the cupola furnace.
- b. For Kemwerke, it organized WM team, implemented recovery/recycling of CO₂ spray water; the management prioritized repair and replacement of worn-out materials causing leaks.
- c. For Noah's, it implemented 7 WM options, estimated initial cost savings
- d. For TSB, it organized WM TEAM, implemented four WM options, and estimated initial cost savings.

Revised reports were submitted by DOST before the meeting. With this progress, L. De Jesus expressed that the Project hopes to come up with more quantified results of the WM process.

L. Antonio asked question on the status of lab testing and analysis of company wastewater/emission. **C. Silverio explained that it is being finalized with the laboratory and with the companies.** She expressed that the testing should immediately be conducted and results included in the next Progress Report. For the meantime, testing is being arranged with the model companies. C. Silverio reckoned that there would be one month to one and a half month gap between the pre-testing and the post WM implementation testing. She suggested that if the quoted price of the present laboratory (SGS) is too high then the Project should check other laboratories such as Ostria and Henori.

T. Corpuz noted that the Associations have not been receiving copies of the Progress Report. L. Antonio clarified that updates on company Waste Min Implementation progress are done during the SC meeting in lieu of providing written reports in deference to confidentiality of information.

H. Bautista, on the other hand, inquired whether the Project Management has discussed/inquired with JICA on technologies for foundry, because he believes Japan is more advanced in terms of technology and that foundry sector is very vital to Philippine Economy. L. De Jesus said she received information from T. Tanaka which she would share with PMAI as soon as possible. C. Silverio informed the group that as far as technology is concerned, there are many technologies available in DOST. He vouched to give information on technology for foundry which are not only from Japan but from other countries as well such as US. As an example, he shared that they are assisting TSB by linking them with Mr Catan, inventor of Green Charcoal, to explore use of solid waste from peelings as substrate for compost.

L. Antonio viewed that in this case, technology/information dissemination by any agency especially DOST should be to three parties – PBE, DOST expert concerned & Industry Association. The technology inventory also be annexed to the WM Guidebook.

R. Gomez shared that the Technical Association of the Pulp and Paper Industry of the Philippines (TAPPIP) has been exploring options for sludge with DOST, and offered to share the technology information they have, with the Project, for input to the WM Guidebook.

WM Guidebook Updates

L. De Jesus presented the matrix on status on the comments made on the WM Guidebook (**Attached**).

T. Corpuz proposed that the WM Guidebook should contain a checklist (like that of GAP analysis) for companies to guide them on what activities to follow not only for WM but also for safety precautions. L. De Jesus said this would be included.

L. Antonio noted that because the model companies would not have finished their WM implementation by June 1st week, the finalization and printing dates of the Guidebook will be moved to July.

Presentation of Industry Level WM Action Plan

PMAI and PULPAPEL presented their WM Action Plan. L. Antonio suggested that they describe specific activities, short descriptions and targets for Advocacy, Technology transfer, IEC and Training. For PULPAPEL, L. De Jesus suggested they could include ways to work with government to encourage paper recovery, knowing that there is a small recovery rate of paper. For PMAI, several issues related to policy advocacy could also be captured in the Action Plan e.g. re the banning of export of metal scarp, L. Leong recommended that PMAI submit a development paper to the Export Development Council (EDC) noting there the rationale for banning because it could be that there are other sectors/parties who do not see it that way, or do not see the need for banning. PMAI's plan to develop a metal engineering course is also an Advocacy example.

L. Leong said that Philexport was having difficulty tying up with Philfoodex on development of a WM Action Plan for the Food Sector. She asked if they could use the TSB Action Plan, but L. Antonio explained that it is a company-level Action Plan. The Industry Association Plan should describe how it would adopt the result of the model company WM. L. Antonio suggested that Philexport thus develop its own WM Action Plan, using the model company from the food sector as an example of how WM can be adopted in an SME, particularly for the fruit processing subsector, to which L. Leong concurred.

For SPIK, M. Cardenas suggested that the WM Action Plan for the chemical sector include mostly manufacturing firms over trading and importing and describe how they are promoting an industry code of ethics through their Responsible Care Program. C. Silverio proposed to focus on set up of toxic and hazardous waste (disposal).

As a general comment, L. Antonio emphasized that the WM Industry-Level Action Plans should describe how the Industry Association plans to follow through on the EMPOWER and to use the model company.

Discussion of the Presentation Designs (WMPP Closure Workshop & EMPOWER Exhibition on Environment Month/4th EMPOWER Seminar)

W. Villanueva presented the provisional program for the Exhibition on June 9 at the Manila Peninsula and the Closure Workshop on June 18 in Astoria Plaza. The Industry Associations concurred with the program. June 10 was set for the next SC meeting to present the semi-final Industry-Level WM Action Plan. PBE will send a reminder to all companies & industry associations to reiterate these upcoming activities.

Next Step

The next meeting of the WMPP SC will also be on June 10, 11:00 to 3:00 pm, venue to be announced.

CONCLUSION

The group approved the minutes of the April 2 meeting. WM Consolidated Assessment report was likewise accepted. The group agreed that the conduct of lab testing and analysis for the four model companies is a priority and should be completed within the next week. WM Guidebook revisions will continue, in close consultation with the industry associations for their specific inputs to their sector write-ups. Industry Associations are to present semi-final Industry level WM Action Plan on the next meeting.

6.1.5. 5th Waste Minimization Committee (June 10, 2003)

ATTENDEES

1. Mr. Tad Tanaka JICA Study Team
2. Ms. Kaoru Oka JICA Study Team

3.	Ms. Helen Casco	Representing Ms. Raquel B. Echague, BOI
4.	Ms. Daisy L. Sugapong	BOI
5.	Dr. Christopher M. Silverio	DOST-ITDI
6.	Ms. Lisa C. Antonio	PBE
7.	Ms. Lloly Y. De Jesus	PBE
8.	Ms. Wini Y. Villanueva	PBE
9.	Mr. J. Hermes D. Bautista, Jr.	Philippine Metalcasting Association, Inc. (PMAI)
10.	Mr. Napoleon J. Tanganco	PMAI
11.	Mr. Reynaldo A. Gomez	representing Mr. Victor Pascual, Pulp and Paper Manufacturers Association, Inc. (PULPAPEL)
12.	Ms. Teresita B. Corpuz	Chemical Industries Association of the Philippines/SPIK
13.	Ms. Leonor D. Abella	Philippine Exporters Confederation, Inc. (PHILEXPORT)
14.	Ms. Ma. Flordeliza C. Leong	PHILEXPORT
15.	Ms. Gigi Digal	PHILEXPORT

AGENDA

1. Review of the Minutes of May 8 Meeting
2. April-May Progress Report
3. WM Plan Implementation Update on Model Companies
4. Presentation of Industry Sector WM draft Action Plan by Industry Associations
5. WM Implementation Feedback Survey
6. Preliminary Evaluation of WMPP using Project Development Matrix (PDM)
7. Other matters
Program of Cebu and Manila WM Closure Workshop

DISCUSSION HIGHLIGHTS

Welcome

L. Antonio welcomed everyone to the meeting and presented the agenda. She suggested the Workshop program for Cebu be included as part of other matters to be discussed/presented after which the agenda was adopted by the group. She reckoned that this might be the last Steering Committee but K. Oka advised that there would be another meeting sometime in August for evaluation of the Project.

Review of May 8 Meeting Minutes

L. Antonio asked for comments on the April 2 meeting minutes. In reply to W. Villanueva's query about the meaning of EDC on page 4, item 16, L. Leong clarified that the statement should be revised as follows: "PMAI submitted a development paper to the Export Development Council (EDC)". With no other changes, L. Antonio called for the approval of the minutes. L. Abella moved for the approval and seconded by L. Leong. L. Antonio then turned over to the WMPP Project Manager, L. De Jesus, for the updates.

Progress Update, April-May

WM Plan Implementation Update on Model Companies

L. De Jesus explained that April-May activities focused on the waste minimization implementation of the model companies. This time they were able to produce more quantitative results, as presented also during the presentation in EMPOWER Seminar, as opposed to the initial report which showed qualitative results only.

Details of their results are as follows:

Kemwerke has implemented 5 WM options. It has disposed of its paper waste of 1 kg per month to Trans-national Paper Corporation, a paper recycler. *Kemwerke* is asking for technical assistance/training in the future from JICA for them to enhance the system for treating wastewater. At present, the person assigned to their wastewater treatment facility is not that skilled. Only one facility is operating, the rest are not.

Noah's was able to benchmark their daily volume of water use. Their major concern is sludge, especially the odor. They are able to operate their wastewater facility.

TSB has implemented a number of good housekeeping measures and solid wastes reductions. A documented reduction on water consumption was reported. As discussed by Dr. Dilverio, *TSB* is currently exploring a potential tie-up with MAPECON to buy the food waste of *TSB* for green charcoal making. They are in the process of designing their wastewater treatment facility together with a *TSB* consultant and are really prepared to invest.

Acetech is continuing the implementation of most of the WM options recommended. The only main issue/problem (besetting their production and the whole industry as well) is the lack of or absence of scrap metal that is vital input to their production. H. Bautista was concerned that President GMA even plans to rehab National Steel, which uses scrap metals as raw material.

L. Antonio noted from the company updates that there were many opportunities for future follow-up such as for training on wastewater treatment facilities and extended on-site assistance. L. Antonio advised the industry associations & the companies to include these among the formal recommendations to JICA in the next progress report.

There was a question on the length of stay or availability of these JICA experts. N. Tanganco commented that a two-week stay would not be enough for an expert to handle all the four sectors; however, a two-week for each sector would be enough. The group concurred with this.

At this point, L. Antonio reiterated to the industry associations, to package their respective companies to come up with such a project/proposal. Like how a company such as *TSB* come up to this level wherein they are willing to invest to put a wastewater treatment plant.

On the laboratory testing and sample analysis, C. Silverio explained that the next progress report

would compare the initial and post-implementation results.

WM Guidebook Updates

Re the guidebook, K. Oka reminded the group that the JICA experts will be providing additional input by June 23. L. De Jesus shared that all the comments discussed during the previous steering committee meeting were already incorporated into the guidebook.

Presentation of Industry Level WM Action Plan

L. Abella presented the Philexport WM Action Plan which described their energy conservation, environmental management plan (See attached). K. Oka asked what is the relationship of the activities to the advocacies. L. De Jesus guided the Philexport explaining that it should follow up on the program such as the environmental management plan, highlight other components of the policy.

T. Corpuz presented the SPIK WM Plan, which was anchored on their existing responsible care Program. She explained that because chemical companies handled different types of chemicals, the main objective is to help prevent pollution, thus different waste management strategies there is not one type of WM they can adopt but.

K. Oka asked if they are preparing document so that each member can share idea. L. Antonio asked to give specific activities, instead of simply saying that they will conduct seminar. In with this, L. De Jesus gave example, general activity plan could be to minimize hazardous waste and then specific activity is training on handling of hazardous waste (timetable, set milestones).

R. Gomez presented the WM Action Plan for the Pulp and Paper Sector. He presented significant projects that the sector is currently undertaking with other funding agencies. L. de Jesus suggested that it might be better if R. Gomez follow the format provided for the WM Action Plan to make it consistent with the other industry associations. L. de Jesus also mentioned that by following the suggested format, the information that in the WM Action Plan may be better highlighted.

Mr. Bautista briefly described what they plan to write in their WM Action Plan. He did not have a prepared document but he was able to provide the general framework of what their Action Plan would look like.

L. De Jesus asked Industry Associations to forward to her their WM Action Plans so she could review and provide comments.

W. Villanueva reported that the Project is retrieving feedback forms from companies other than the four model companies to determine whether these companies are implementing the WM options. She noted to the SC that three companies so far have replied and that they are actually implementing most of the options presented to them during the WM Assessment.

W. Villanueva presented the program for the Cebu and the Manila Closure Workshop. For the

Manila program, it was suggested that company presentation should be after the its respective Industry Association presentation. W. Villanueva will revise the Program accordingly.

Next Step

The next meeting of the WMPP SC will also be on August. K. Oka will advise the group on the exact date.

CONCLUSIONS

The group approved the minutes of the May 8 meeting. They reviewed the WM implementation progress of the model companies and offered suggestions on the Industry Association Waste Min Plans. Industry Associations are to revise their presentation based on the comments.

6.1.6. 6th Waste Minimization Committee (August 12, 2003)

ATTENDEES

- | | | |
|-----|-----------------------------|--|
| 1. | Mr. Masato Ohno | JICA Study Team |
| 2. | Mr. Tad Tanaka | JICA Study Team |
| 3. | Ms. Kaoru Oka | JICA Study Team |
| 4. | Ms. Raquel B. Echague | Board of Investments |
| 5. | Dr. Christopher M. Silverio | DOST-ITDI |
| 6. | Ms. Lisa C. Antonio | PBE |
| 7. | Ms. Lloly Y. De Jesus | PBE |
| 8. | Ms. Wini Y. Villanueva | PBE |
| 9. | Mr. Reynaldo A. Gomez | representing Mr. Victor Pascual, Pulp and Paper Manufacturers Association, Inc. (PULPAPEL) |
| 10. | Ms. Leonor D. Abella | Philippine Exporters Confederation, Inc. (PHILEXPORT) |

AGENDA

1. Brief Progress Update
 - a. Model Companies
 - b. Industry Associations Recommendations
 - c. WM Guidebook
2. General Review
 - a. Key Project Outputs
 - b. Project Evaluation (with Project Development Matrix)
3. Others

DISCUSSION HIGHLIGHTS

Welcome

L. Antonio welcomed everyone to the meeting and presented the agenda. K. Oka raised that the proposed JICA Training on Cleaner Production be included in the agenda. The agenda was adopted by the group.

Review of June 10 Minutes

L. Antonio asked the SC to briefly review the minutes on the June 10 meeting minutes. With no other changes made, C. Silverio moved for the approval of the minutes, seconded by R. Echague. L. Antonio then turned over to the WMPP Project Manager, L. De Jesus, for the updates.

Progress Update, June to August

WM Plan Implementation Update on Model Companies

WM monitoring at the four model companies have been concluded and the results of WM benefits (as of June 23) are described in the PDM supporting documents. However, the consolidated report is not yet ready because the DOST final monitoring reports were only received on August 8, 2003. She will make the consolidated report by Friday.

The Industry WM Action Plans have all been finalized. These contained their sector-specific recommendations, which were really more like “wish lists”. W. Villanueva will give K. Oka the electronic files.

Regarding BOI Government Award System for IEM, R. Echague explained that this was not pursued to avoid overlaps with similar new and existing initiatives.

Regarding JICA EMPOWER Study, K. Oka asked the SC to forward comments by August 25 through M. Takagi.

WM Guidebook Updates

The WM Guidebook will use the reports submitted by the DOST as the basis for finalizing the remaining Section 4. In reply to K. Oka’s question on where the productivity section is to be included, L. De Jesus said that it will be placed after the Section 3.1 of the Guidebook. The WM Guidebook Outline will be revised accordingly.

PDM Review

Antonio facilitated PDM Review. She led the SC through the Project supporting documents. (See attached PDM Summary of Supporting Documents.)

K. Oka pointed out that outputs that are not doable or cannot be delivered within the project period should not be cited anymore in the Report. So it should be restated that “output will not be delivered by the end of the Project.” However, on the matter of monitoring the implementation of the industry-wide WM Action Plans, the means of verification should be restated into “monitoring plan” which PBE will prepare.

L. Abella she shared that that when associations plan to do something, annual report or progress report can be used as a measure. She added that Associations usually have a secretariat or a point person in environmental concern where monitoring can be coursed through. She also requested that PHILEXPORT be referred to as PHILEXPORT National to differentiate it from PHILEXPORT Cebu.

L. Antonio cited other ways for the associations to monitor or get feedback from their members like through survey or phone interview.

For PULPAPEL, R. Gomez declared that because of their Environmental Management Program (EMP) under the DBP-EISCP, they have a monitoring system, but it is more in the form of “status reporting” by the TWG, rather than “evaluation/monitoring”. DBP for instance, requires to include status/progress of the target (which is in a way a monitoring). He added that as an Association PULPAPEL does not categorically monitor, but more of extend assistance to its companies.

L. Antonio noted that different industry associations have different focal points that PBE can coordinate with to assess program of WM Action Plans.

Regarding supporting documents for the attendance lists and feedback forms from the workshops, these were not attached and L. Antonio asked W. Villanueva to provide these to K. Oka the next day. W. Villanueva also clarified that there are now 35 company declarations received as compared to the original 22 initial company declarations.

Regarding BOI award system, there was a suggestion to state in the PDM that this was not pursued to avoid overlaps with other initiatives.

General Recommendations

L. Antonio shared the following general recommendations:

Follow-up projects for continuing technical assistance to the model companies and to the industry associations

Monitoring of Industry-sector WM Action Plans and industry productivity performance by the Industry Associations and BOI and sharing workshop in 2004.

Extended Cleaner Production (CP)/WM Training and/or study tour for companies and industry associations representatives

She added that DOST had prepared a proposal which will be attached to the Project Terminal Report. C. Silverio briefly described the proposed objectives and activities. In reply to P. Rubio’s question

about assistance ITDI can provide, in the absence of external funding, C. Silverio explained that ITDI can continue to monitor the model companies and will be locating their pilot wastewater treatment facility at TSB in the meantime.

L. Abella expressed that if the project is looking at what group who is going to monitor she reckoned that DOST (in terms of capacity) is in a better position rather than the Industry themselves. She likewise expressed that she is happy with the DOST proposal and she deemed that most of the ideas are also what the industry associations would like to carry out.

Next Steps

L. Antonio summarized that the WMPP had achieved about 80% of its target, since the WM Guidebook had not been finalized. She committed that PBE will, however, target to complete and distribute it by September.

L. Antonio thanked everyone in the SC for all their support and contributions to the success of the WMPP, and adjourned the meeting.

ANNEX 6.2

6.2. First Plant Visit Schedule for Pre-Assessment (December 2002)

1st Plant Visit Schedule (12/2 ~ 12/6)

DATE	COMPANY	TIME	GROUP MEMBERS
02Dec02 (Mon)	Container Corporation of the Philippines - Paper 60 Old Samson Road, Balintawak, Quezon City T: 361-9801 F: 362-0370 Mr. Victor Pascual, President c/o Ms. Cora	A.M.	Mr. Norio Sambyakugari Mr. Masato Ohno Mr. Tad Tanaka Ms. Belle Villanueva Ms. Wini Villanueva
	Noah's Paper Mills, Inc. - Paper South East Marcos Bridge, Marcos Highway, Marikina City T: 645-5684;645-5678;6811771 loc. 108 F: 645-5684 Mr. David Hwang, Vice President c/o Ms. Margie De Los Reyes Ms. Emma Domingo, Technical Services Manager	P.M.	Mr. Norio Sambyakugari Mr. Masato Ohno Mr. Tad Tanaka Ms. Belle Villanueva Ms. Wini Villanueva
03Dec02 (Tue)	Aclem Paper Mills - Paper 2 Magsaysay Road., Bo. San Antonio, San Pedro, Laguna T: 847-6324/5 F: 869-0869 Mr. Roberto Lim, Sr. Vice President Contact Person: Susan	A.M.	Mr. Norio Sambyakugari Mr. Hiroshi Uchiyama Ms. Kaoru Oka Ms. Imelda Ongo
	Mabuhay Vinyl - Chemical Commerce Road, Laguna Technopark, Sta. Rosa, Laguna T: (049)542-1922/3;542-1972 F: (049)541-1973 Mr. Edwin Umali, President Contact Person: Mr. Manny Palermo	P.M.	Mr. Hiroshi Uchiyama Mr. Norio Sambyakugari Ms. Kaoru Oka Ms. Imelda Ongo
04Dec02 (Wed)	Acetech Metal - Foundry 4013-A Tatalon Road, Bo. Ugong, Valenzuela City T: 984-1744 F: 984-1743 Mr. Napoleon J. Tanganco, Vice President for Production International Chemical Industries, Inc. (INCHEM) - Chemical	P.M.	Mr. Tad Tanaka Mr. Satoshi Sugimoto Dr. Christopher Silverio Ms. Wini Villanueva
	Barrio Tuktukan, Guiguinto, Bulacan c/o Ms. Evangeline Villanueva T: (044)794-0113	A.M. (0930H)	Mr. Hiroshi Uchiyama Mr. Tad Tanaka Ms. Imelda Ongo

DATE	COMPANY	TIME	GROUP MEMBERS
	TSB Enterprises, Inc. - Food 148 Pinkian, Philand Subd., Pasong Tamo Tandang Sora, Quezon City c/o Ms. Bernie De Guzman T: 931-9744	A.M. (0930H)	Mr. Masanao Hirai Ms. Misako Takagi Ms. Suzette Oredina Ms. Wini Villanueva
	Jo-na's Int'l. Phils., Inc. - Food 17/22 Clemente Street, San Agustin, Novaliches, Quezon City c/o Ms. Lorena Hojilla T: 938-9037;936-7248	P.M. (1330H)	Mr. Masanao Hirai Ms. Kaoru Oka Ms. Suzette Oredina Ms. Wini Villanueva
05Dec02 (Thu)	Metals Engineering Resources Corporation - Foundry National Road, Tunasan, Muntinlupa City T: 809-1722;809-1706;809-1704 Mr. Rey Perez, Production	P.M.	Mr. Tadao Tanaka Mr. Masanao Hirai Mr. Norio Sambyakugari Mr. Hiroshi Uchiyama Ms. Suzette Oredina Ms. Wini Villanueva
	BFC Worldwide, Inc. - Food c/o International Chemical Industries, Inc. (INCHEM) Barrio Tuktukan, Guiguinto, Bulacan c/o Ms. Evangeline Villanueva T: (044)794-0113	A.M. (0930H)	Ms. Misako Takagi Mr. Masanao Hirai Ms. Suzette Oredina Ms. Wini Villanueva
06Dec02 (Fri)	Philippine Resins Industries, Inc. (PRII) - Chemical PNOC Petrochemical Development Corp. (PPDC) Complex Batangas Dos, Mariveles, Bataan T: (047)244-6406 F: (047)244-5976 Mr. Akihisa Nishina, President c/o Mr. Nestor Villamor, T: (047)244-6408 Cell: (0917)576-0541 Mr. Jude R. Montejo Cell: (0917)846-5434	A.M. (1000H)	Mr. Tad Tanaka Mr. Uchiyama Mr. Sambyakugari Ms. Imelda Ongo

ANNEX 6.3

6.3. Second Plant Visit Schedule for Assessment (January 2003)

Name of Company	Address	Date of Assessment	Waste Minimization Team
FOOD PROCESSING			
1. Cebu Legacy	Bo. Pilit, Cabancalan, Mandaue City, Cebu	February 5, 2003	Ms. Suzette Odina, ITDI Ms. Lloly de Jesus, PBE
2. Central Seafood Inc.	Pilipog, Cordova, Cebu City	February 5, 2003	Ms. Suzette Odina, ITDI Ms. Lloly de Jesus, PBE
3. Basics Food Corporation	Guguinto, Bulacan	January 27, 2003	Mr. Masato Ohno, JICA-ST Mr. Masanao Hirai, JICA-ST Ms. Carmel Gacho, ITDI
4. Eldon Industrial Corporation	Bldg1 Lot E, Sunriser Village, Laano North, Caloocan City	January 30, 2003	Mr. Masanao Hirai, JICA-ST Ms. Misako Takagi, JICA-ST Dr. Chris Silverio, ITDI-DOST Ms. Lisa Antonio, PBE
5. Jonas International Philippines	No 22 Clemente Street, Bgy. San Agustin, Novaliches, Quezon City	February 1, 2003	Mr. Masato Ohno, JICA-ST Ms. Suzette Odina, ITDI-DOST Ms. Wini Villanueva, PBE
6. TSB Enterprises	148 Pinkian Drive. Philand Subdivision, Barangay Pasong Tamo, Tandang Sora, Quezon City	January 31, 2003	Mr. Masanao Hirai, JICA-ST Ms. Misako Takagi, JICA-ST Dr. Chris Silverio, ITDI Ms. Lisa Antonio, PBE
7. FMC Marine Colloids	Ouano Compound, Looc, Mandaue City, Cebu	February 7, 2003	Ms. Suzette Odina, ITDI
FOUNDRY			
1. San Gabriel Enterprise	Alinsu Compound, S.E. Jayme Street, Paknaan, Mandaue City, Cebu	February 6, 2003	Ms. Suzette Odina, ITDI Ms. Lloly de Jesus, PBE
2. Cebu Iron Foundry Corp.	Tayud, Lilo-an, Cebu	February 6, 2003	Ms. Suzette Odina, ITDI Ms. Lloly de Jesus, PBE
3. Acetech Metal Industries Corp.	A Tatalon Road, Barrio Ugong, Valenzuela City, Metro Manila	January 31, 2003	Mr. Tad Tanaka, JICA-ST Mr. Sambyakugari, JICA-ST Mr. Masanao Hirai, JICA Ms. Carmel Gacho, ITDI
4. Metal Engineering Resources Corp.	National Road, Tunasan, Muntinlupa City	January 27, 2003	Ms. Belle Villanueva, ITDI
PULP AND PAPER MILLS			
1. ACLEM Paper Mills, Inc.	2 Magsaysay Rd, Bgy. San Antonio, San Pedro, Laguna	January 30, 2003	Tad Tanaka, JICA-ST Norio Sambyakugari, JICA-ST Belinda Villanueva, ITDI
2. Container Corp of the Philippines	#60 Old Samson Road, Balintawak, 1106 Quezon City	January 31, 2003	Mr. Masato Ohno, JICA-ST Mr. Norio Sambyakugari, JICA-ST Ms. Belle Villanueva

Name of Company	Address	Date of Assessment	Waste Minimization Team
3. Noahs paper Mills, Inc.	South East Marcos Bridge, Marcos Hi-way, Marikina City	January 29, 2003	Mr. Masato Ohno, JICA-ST Mr. Norio Sambyakugari, JICA-ST Ms. Belle Villanueva, ITDI
CHEMICAL PROCESSING			
1. Kemwerke Inc.	233-A.C Deguzman St., Malibay, pasay City	January 31, 2003	Mr. Tad Tanaka, JICA-ST Mr. Hiroshi Uchiyama, JICA-ST Ms. Emelia Ongo, ITDI-DOST
2. International Chemicaqls Industries	Barrio Tuktukan, Guingunto, Bulacan	January 27, 2003	Mr. Hiroshi Uchiyama, JICA-ST Ms. Emelia Ongo, ITDI-DOST
3. LMG Chemical Group	52 Elisco Road, Barrio Kalawaan, Pasig City	January 28, 2003	Mr. Masato Ohno, JICA-ST Mr. Hiroshi Uchiyama, JICA-ST Ms. Emelia Ongo, ITDI Ms. Lloyl de Jesus, PBE
4. Mabuhay Vinyl Corporation	Commerce Road, Laguna Techno Park, Sta. Rosa, Laguna	January 31, 2003	Mr. Hiroshi Uchiyama, JICA-ST Ms. Emelia Ongo, ITDI
5. Phi Resins, Industries, Inc.	PPDC Petrochemical Industrial park, Batangas II, Mariveles, Bataan	January 30, 2003	Mr. Masato Ohno, JICA-ST Mr. Hiroshisi Uchiyama, JICA-ST Ms. Emelia Ongo, ITDI-DOST
6. United Coconut Chemicals, Inc.	Cocochem Plant, Aplaya, Bauan, Batangas	January 29, 2003	Mr. Tad Tanaka, JICA-ST Mr. Hiroshi Uchiyama, JICA-ST Ms. Emelia Ongo, ITDI

ANNEX 6.4

6.4. The WM Assessment Report for 20 Companies

6.4.1. Four (4) MODEL COMPANIES PROFILE

1. Kemwerke Company Profile

KEMWERKE, INC.

COMPANY PROFILE (BRIEF)

Kemwerke, Inc. - is a 100% Filipino owned SME Corporation and is now fully an ISO-9002 certified Company with certificate number 403696 from Lloyds Registered Quality Assurance of United Kingdom.

SME - Small Medium Enterprise, as classified by Philippine Government thru Department of Trade and Industry (DTI) are as follows:

Type of Enterprise	Micro	Cottage	Small	Medium	Kemwerke
Capitalization	P160,000 & below	P150,000-1.5M	Above P1.5M-15M	Above P15M-100M	P25M
No. of employess	1-4	5-9	10-99	100-199	26

% of SME in the Philippines – 99%

PRODUCT PROFILE

Kemwerke products fall under the general classification of “chemical product”

To be specific

-Kemwerke products are Alkyd Resins, Polyol Resin, Polymerized Vegetable Oil, Emulsion Resin and other Synthesized Resins for the Paint, Ink, Adhesive, & Varnish (Coating) Industry. It also produces No-bake Furan Resin for Metal Casting/Foundry Industry.

% Tariff Duty as of 2001

	<u>DESCRIPTION</u>	<u>HS CODE</u>	<u>MFN</u>	<u>ASEAN</u>
Under tariff Heading Classification	Alkyd Resin	3907.5000	10%	10
	Emulsion Resin	3904.2300	15%	10
	No-bake Furan Resin	-	-	-
	Polyol Resin (Other Polyesters)	3907.9100	7%	3

VISION

To establish a strong foothold in the following industries: Surface Coating (Paint, Ink, Varnish, and Adhesives) Metal Coating, Poly & Paper, Plastic, and Mixing by being a provider of quality products with excellent sales and technical services.

MISSION STATEMENT

- To be a preferred supplier of quality, secure and chemical products in the Philippines and in the global markets.
- To develop efficient, innovative and profitable products as a way of meeting diverse challenges.
- To provide excellent technical and sales services.
- To develop a culture among our employees in rendering excellent services first to our customers and to the public in general by encouraging basic moral values of honesty, integrity, cooperation, loyalty, industry, commitment, initiative, and social-acceptable working styles.
- To enhance employee productivity by providing job stability, professional development and financial growth.
- To think and act in the best interest of the Company as to make it viable, strong and competitive.
- To ensure Good-Working and Good-Earning employees.



COMPANY PROFILE



ADDRESS : MALIBAY, PASAY, METRO MANILA, PHILIPPINES
 Telephone No : (+63) (02)-2865 830-870
 Fax No : (+63) (02)-2781 4788

CORPORATE VALUES

- We put God above everything we do.
- We care about our environment and communities.
- We put our customers first and respond to their needs.
- We care about our employees and their families.
- We provide quality product and reliable services throughout the organization.
- We care about the company's profitability.
- We care about the long term success of our company.
- We are prepared to change and improve to meet the market demands.
- We will be professional in all our services and in all our business dealings.
- We will be honest, ethical, fair and just at all times.

Kemwerke is open for Business Opportunities to:


- Investors / Joint Ventures / Partners / offering: new process... new technology... new products for Kemwerke Planned Diversification

Kemwerke Planned Diversification - to Manufacture under License or Tolling:

- Foundry Resins - for metal casting industry use as no-bake mold binder
- Building Chemicals - for use in the construction industry
- Agri - Chemicals - simple ester use as active ingredients
- Personal Care Products - intermediate ester products as 1 RM component
- White Gue Resin - for use in adhesives industry
- Polyamide Resin - for use in printing ink industry

MAJOR RAW MATERIALS PURCHASED	
DOMESTIC	IMPORTED
A.R. Soya Oil	Kyloil
A.R. Coconut	Toluene
Phthalic Anhydride	Kerosene
99% Glycerine	Aluminum Foil
Minera Spirit	
	A.R. Soya Oil
	A.R. Linseed Oil
	Phthalic Anhydride
	TMP, PE, EG
	VAM, 2 EHA

SUPPLY CAPABILITY RATE/CAPACITY		EXPORT DATA	
Products Manufactured	Production	Export	Major Export Market:
Alkyd Resin	700 MT/NO	400 MT/MO	Ho Chi Minh City Vietnam
Polyester Resin	150 MT/NO	100 MT/MO	Minor Export Market:
Saturated / Unmaturated			Germany, Singapore, Israel
Emulsion Resin	300 MT/NO	200 MT/MO	Myanmar
Vinyl - Acrylic			China, Sri-Lanka, Greece,
Vinyl - Veova-0			Saudi Arabia, Pakistan,
			Bangladesh
Aluminum Paste	60 MT/NO	40 MT/MO	Developing Export Market:
Leafing / Non Leafing			Packaging: 200 kg.net / drum
Linseed/ Soya Stand Oil	200 MT/NO	150 MT/MO	Capability: 400 MT/MO
			Terms of Payment: DA, DP
			Irrevocable LC at sight
			Delivery time: Prompt
			Product Quality Assurance:
			with certificate of analysis
			conforming to standard tests



Kemwerke, Inc.

Contact Person:

Office & Plant Address:
233 A.C. DeGuzman St.
Malbay, Pasay City
Metro Manila, Philippines

Tel. Numbers:
(612) 833-853
(612) 833-2465


Fax Number:
(612) 833-298

Type of Business:
Alkyd Resins - For use in Paints, Varnish, Lacquer, Inks, Coatings
Emulsion Resin
Aluminum Paste
Urethane Alkyd - For use in Wood/Metal Furniture, Ship/Industrial Coatings
Acrylic Resins - For use in sanitary can coatings
Polyester Resins - For use in coil, can coatings

Legal Status: Corporation **Company Size:** Small-Medium Enterprise

Capitalization: Subscribed: \$0.71 M Paid-in: \$0.12 M

Manpower: 32 employees (permanent status)



LUIS G. FERNANDO
Managing Director

SALES TURNOVER	
1994	1995
\$3.12 M	\$3.67 M
\$0.02 M	\$0.03 M
\$3.12 M	\$3.69 M

Shareholders:
Luis G. Fernando Peter Dee Anthony Fernando
George Dee Jr. Joseph Gutierrez Michael Dee
Robert Dee Jr.

Gov't Register Number: Securities & Exchange Commission (SEC) No. 1110388 h 1983

Bank References: Rizal Commercial Banking Corporation
Metropolitan Bank & Trust Company

Company Affiliate: ALPOLAC, INC.

Professional Affiliations: Philippine Association of Paint Manufacturers (PAPM)
Samahean sa Pilipinas ng mga Industriyang Kimika (SIPIC)
Surfactant Coating Research & Development Center (SCRDC)

2. Noah's Paper Mills, Inc. Company Profile

Mini- Audit at Paper Mills

1.1 Contact Information

Company Name : NOAH'S PAPER MILLS , INC.
 Mill Address : South East Marcos Bridge, Marcos Highway
 Calumpang , Marikina City
 Contact Persons : Mr. David Hwang – VP Manufacturing
 Mrs. Geronima T. Domingo – Tech. Services Manager
 Telephone : 6455678, 681771
 Fax No. : 6455684
 E-mail Address : davidh@mydestiny.net

1.2 General Information

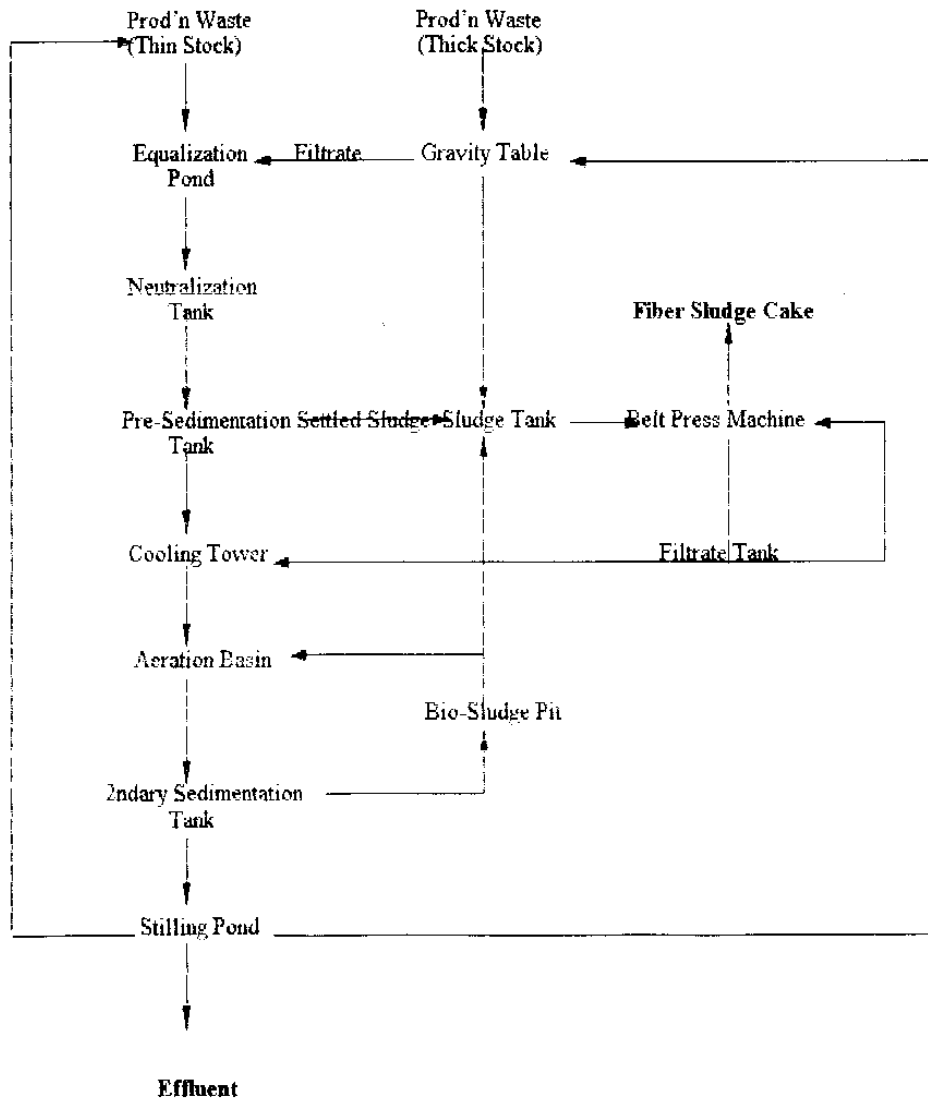
Start-up year : 1996
 Main Markets : local market
 Exports % : not applicable
 Ownership : 100% private
 No. of Employees : 86
 Products : Printing and Writing Grades
 Production Rates : 61 MT/day (average)
 Production periods : 24 hrs/day (3 shifts basis) at 260 working days
 Rated Machine Cap. : 23,000 MT/yr
 Actual Production : 15,917.755 MT/yr (Year 2001)
 Main Processes : De-inking & Papermaking

BOD ANALYSIS FOR THE YEAR 2001

Month	pH	TSS	COD	BOD 5
January	7.37	56.21	93	38.62
February	7.43	51	82.07	27.12
March	7.5	47.61	66.31	18.61
April	7.42	61.7	59.53	18.23
May	7.52	53.06	94.06	18.98
June	7.61	57.46	82.71	18.85
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
October	7.92	68.58	103.15	43.58
November	7.62	60.24	102.55	45.17
December	7.67	50.42	95.2	38.05
Average	7.56	56.25	86.51	29.69

Average Production Output for the year 2001 : 61.222 mt
 Average Discharge Flow : 504 cubic meter/day
 BOD, kg/MT : 0.244 kg/mt

**WASTE WATER TREATMENT FLOW DIAGRAM
(ACTIVATED SLUDGE PROCESS)**



WASTE WATER TREATMENT FACILITIES

- I. PRIMARY TREATMENT
 - A. EQUALIZATION POND
 - A.1 2 UNITS Agitator/Mixer
 - A.2 1 unit Submersible Pump
 - A.3 2 units Transfer Pump
 - B. NEUTRALIZATION TANK
 - B.1 1unit Bar Screen
 - B.2 1 unit Agitator/Mixer
 - C. PRE-SEDIMENTATION TANK
 - C.1 Scraping Arrangement
 - C.2 2 units flocculation Agitator/Mixer
 - C.3 1 unit submersible Pump
 - C.4 2 units Sludge Pump
 - C.5 1 unit Scum Pit Pump
- II. SECONDARY TREATMENT
 - A. COOLING TOWER
 - B. AERATION BASIN
 - B.1 2 units Air Blower
 - B.2 2 units Submersible Aerator
 - B.3 1 unit Submersible Pump
 - C. NUTRIENT APPLICATION
 - C.1 1 Preparation & Dosing Tank
 - C.2 1 unit Dosing Pump
 - D. SECONDARY SEDIMENTATION TANK
 - D.1 1 unit Siphon System
 - D.2 1 unit RAS Submersible Pump
 - D.3 1 unit WAS Submersible Pump
 - E. STILLING POND/EFFLUENT POND
 - E.1 Belt Press Machine Shower Pump
 - E.2 Utility Pump
 - E.3 2 units Gravity Table Shower Pump
 - E.4 Treated Water Pump (for water recycling)
- III. SLUDGE TREATMENT
 - A. 1 UNIT BELT PRESS MACHINE (DEWATERING MACHINE)
 - B. 1 UNIT BELT PRESS FEED PUMP
 - C. 1 UNIT GRAVITY TABLE

Noah's Paper Mills, Inc.
Marikina, Philippines

Daily Production Meeting

Ref. #:

Date: January 29, 2003

Daily Production :

Prepared by :

(1) Mill Performance

Paper Machine Performance				
Brand	textbook	Operating Time	Hr	19 Min 41
Grade	62 gsm	Total D/Time	Hr	4 Min 19
Reel(tons)	79.65mt	N O B	6 Break d/t	49 mins
Reel Speed	460mpm	Opt d/t	300m	Maint. D/t
1. Wet-end breaks-2				
2. Dry-end breaks-4				
Winder Performance				
	Speed(mpm)	# of Breaks	Scanner	Roll Production (ton)
Winder 1	1200	27	27	Prime Job Lot
Winder 2	34			
	Actual	Target	Good	Reject
Daily	77 539	86	52 845	24 694
Month to Date	825 316	2560	633 226	168 641

Wrap Day	MTD Target	MTD Total	Trim	Slab-PM	Slab-Wind
77 539	2560	825 316	0.18	0.961	0.86

RCF Performance		Headbox Performance			
		Shift1	Shift2	Shift3	
Fiber to Process	113.10 MT	HB Cons	0.64	0.87	0.62
DIP to Blend	59.87 MT	Tray Cons	0.11	0.15	0.12
Direct to blend	17.10 MT	FPR	63.36	76.4	79.99
Broks (slash)	2.66 MT	Freeness	230		222

(2) Quality

	Textbook 62 gm		
	Min	Max	
1. Formation	C-	C-	C+
2. Brightness	88.91	85.2	88.4
3. Dirt Count	11	5	28
4. Opacity	91.54	90.4	93.78
5. Roughness	287	170	1083
6. Basis Weight	81.22	56.5	88.34

Boiler Water Analyte	pH					Hardness				
	SW	DW	BW	CW	FW	SW	DW	BW	CW	FW
1. First Shift	8	8	10	8	8	0	0	0	0	0
2. Second Shift	8	8	10	9	9	0	0	0	0	0
3. Third Shift	8	8	10	8	9	0	0	0	0	0

(3) Power & Utilities

Power Source	MERALIX	x
	GenSet 1	
	GenSet 2	
Prod. Load (kWh)	74,437	
Non Prod. Load (kWh)	9,441	
Gen Set Load (kWh)		
Total Mill consum. (kWh)	83,878	
Total Fuel Consum. (L)	9,980	
Boiler (L)	9,980	
Gen Set (L)		
Total Steam (MT)	217	
(kg steam/Li fuel)	Target	Actual
	18.22	22
Water Consumption (cu m/day)		
PM / DIP / TECH	1,800	
EMD	20	
P.B.	38	
TOTAL	1,658	
TOTAL in GPM	304	
Reservoir	Previous	Present
Level %	93	100
DW Yield (GPM)	546	
Consum/Metric Ton	Actual	Target
Power (kW-Hr / MT)	980	1,200
Fuel (L / MT)	129	170
steam (Tons / MT)	3	3
Water (m3 / MT)	21	25

(4) Environment

Description	Actual	Target	Unit
1. Spac. H2O cons			
2. Mill H2O cons			
3. Mill Influent	266	250 - 300	ppm
4. BOD5-E		50	ppm
5. BOD5-River		50	ppm
6. TSS EFF	72	70	ppm
7. TSS River	88	70	ppm

RW / ETP

Shift 1	
Shift 2	
Shift 3	

RCF

Shift 1	shutdown DIP for primary prescreen maintenance repair conduct cleaning of screens by opening and de-clogging screen basket; check-up knock-off shower assembly VDF conduct equipment cleaning on by-passed equipment temporary utilized hardwood and softwood pulper for machine stock requirement in absence of DIP
Shift 2	encounter difficulty of dumping stock along hi-con pulper due to wet strength material loaded (milk carton) encounter difficulty of transferring stock from screw press feed tank / high laboratory results as compare to transmitter
Shift 3	by-passed multiscreen, secondary slot screen A and tertiary slot screen consume all remaining direct loading stock along hardwood chest

PM

Shift 1	6:04am SB @c-roll 5 mins ; SB at calender 2 mins ; 7:44 am shutdown PMAC due to fixing of flat box at wire section. 3hr 14mins. 11:08 SB @ 3rd dryer 7mins .
Shift 2	2:25 pm power fluctuation, 18 mins delay, 3:13 pm SB @ calender 2 mins, 6:26 pm SB @ size press 18 mins Delay due to paper trapped at 3rd dryer upon forwarding of paper
Shift 3	normal operation.

(6) Follow-Up Actions / Issues

S/N	Item / Issues	Date Started	Date Targeted	Responsible	Status
1	Assemble of submersibleerator	1/27/03	1/31/03	Mech1	Ongoing
2	Repair of Primary Pre- Screen	1/28/03	1/28/03	Mech1	Normal
3	Installation of canvass tensioner sprocket at 5th Dryer	1/28/03	1/28/03	Mech1	Operational
4	Fabrication of folio sheeter lever arm	1/27/03	1/30/03	Mech1	Operational
5	Installation of folio sheeter no. 4 repaired scissors lift cylinder.	1/28/03	1/28/03	Mech1	Operational
6	Re- packing of bearings of flotator cell- C	1/28/03	1/28/03	Mech1	Done
7	Greasing and fill-up oil to exact level as per schedule			Mech1	Routine Works
8	Monitor of Running equipment and sealing water lines			Mech1	Normal
9	flashing and charging of fraon 22 at DCS 3 ACU	1/28/03		electrical	for observation
10	meralco's power around 2:20 pm PM drives was faulted	1/28/03		electrical	resolved
11	rewired the controller of new installed ACU	1/28/03		electrical	operational
12	repair and reconditioning of stanby ACU of rewinder 1(3TR)	1/28/03		electrical	operational
13	Calibrated Screw Press Feed Tank level transmitter.	01/28/03	1/28/03	Intrum'h	Operational
14	Troubleshoot and repair High Density Silo Dilution Water flowmeter	01/28/03	1/28/03	Intrum'h	Operational
15	check-up and monitor the consistency transmitter near disk thickener	01/28/03	1/28/03		on going
16	check-up of dilution flowmeter sensor near liquid cyclone	01/28/03	1/28/03	Intrum'h	ok
17	checked and adjusted scanner parameters due to high dc volt alarm on ECF board	01/28/03	1/28/03	Intrum'h	ok
18	H F O storage level at 850m3= 435m3 , 250m3= 250m3		1/29/03	pb	
19	Test run of GENSET # 1 & # 2		1/29/03	pb	o.k./stndby.