

REPORT ON

TRAINING WORKSHOPS IN EFFECTIVE MANAGEMENT OF HAZARDOUS MATERIALS, HAZARDOUS WASTES AND CONTAMINATED SITES WORKSHOP REPORT REPUBLIC OF THE MARSHALL ISLANDS

Submitted to :

South Pacific Regional Environment Programme

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Apia, Samoa

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ACRONYMS

PCBs	Polychlorinated Biphenyls
PICs	Pacific Island Countries
POPs in PICs	Persistent Organic Pollutants in Pacific Island Countries Project
PPE	Personal Protective Equipment
RMI	Republic of the Marshall Islands
SPREP	South Pacific Regional Environment Programme
TBA	To Be Announced

1.0 INTRODUCTION

Management of hazardous materials, hazardous wastes and contaminated sites has become an increasingly important issue for Pacific Island Countries (PICs). In 1997, AusAID, in conjunction with SPREP, implemented the Persistent Organic Pollutants in Pacific Island Countries project (POPs in PICs) to address this issue. As part of the POPs in PICs project, training workshops will be held in thirteen PICs to create awareness and understanding on the **effective management of hazardous materials, hazardous wastes and contaminated sites**.

A five day training workshop was delivered in the **Marshall Islands** during the period 19-26, February 2001. The workshop included interactive activities and exercises, site inspections and practical field demonstrations. The workshops were designed and delivered by Golder Associates under contract to SPREP with the following objectives:

- To upgrade the Marshall Islands' capacity for the effective management of hazardous materials and hazardous waste;
- To upgrade Marshall Islands' capacity for effective management of contaminated sites; and
- To raise awareness in Marshall Islands' communities of issues associated with the generation and management of hazardous wastes.

Prior to the workshop commencing, a Pre-Workshop Questionnaire was prepared and distributed to workshop participants. The purpose of the questionnaire was to obtain preliminary information on participants understanding of hazardous materials management and any desired workshop outcomes. However no responses were received from workshop participants.

2.0 WORKSHOP PARTICIPANTS

2.1 Organisations Represented

A complete list of workshop participants is provided in Appendix A.

2.2 Organisations Not Represented

Several applicable organisations were unable to send a representative to the training workshop, including:

- Ministry of Public Works (Waste Management);
- Fire Department;
- Customs Department; and
- Quarantine Services.

3.0 MAJOR ISSUES IDENTIFIED

The following major in-country issues were agreed by workshop participants, in order of priority:

1. **Bilgewater** discharge into the lagoon is uncontrolled.
2. Status of the **Basel and Waigani** conventions are unknown.
3. **Car battery disposal** is occurring in an unplanned manner.
4. The **waste stream going to landfill on Majuro** is unknown in terms of composition and volume.
5. **Disposal of plastic bags** is occurring into the lagoon.
6. Proximity of **Uliga Elementary School** to the Mobil Oil terminal is a major concern.
7. **Autoclaves at the hospital are inadequate** for pre disposal sterilisation of medical waste, medical wastes from the hospital is not incinerated adequately; and
8. **Fire services** on the island of Majuro are inadequate.

4.0 COUNTRY REPORT UPDATE

The following current information was obtained from participants and/or during site inspections:

- Quantities of cyanide seized by sea patrol are stored at sea patrol storage container.
- There is a large quantity of old fertilizer stores stored at Laura Agricultural Research Station.
- There is a large american underground bunker with unexploded ordinance located near the water reservoir that needs decommissioning.
- Bilgewater discharge by ships in the lagoon is uncontrolled at present. There are no resources to enforce controls on discharges.
- There was sludge stored at the Mobil Terminal. The sludge has been moved and the participants were not aware of what has happened to the sludge.
- The EPA are stockpiling car batteries in a shipping container for disposal/recycling off island. However, the EPA require assistance in identifying suitable disposal sources.

5.0 EVALUATION ISSUES

The following issues were noted in the daily workshop evaluation forms:

1. Standards and codes of practice are not a part of the RMI legislation.
2. More detail is required on the status of RMI in SPREP's overall plan (update on timeline).
3. Importation controls on hazardous materials is difficult to execute as there are limited resources and legislation that are enforced.
4. The status of hazardous wastes on the Ebeye atoll is unknown and does not appear in the country report.

6.0 ACTION PLANS

6.1 General Action Plan

To address the identified major issues, during the workshop participants developed and agreed to implement the Action Plan shown in Table 1 below.

Table 1 – General Action Plan for the Republic of Marshall Islands

ACTION	WHO	TIMELINE	STATUS
Initiation of a bilgewater disposal programme.	Ministry of Health and Environment	05/01	
Establishment of the statutes regarding the Basel and Waigani Convention commitment.	Ministry of Health and Environment Ministry of Foreign Affairs	04/01	
Initiation of a waste recycling/collection programme for car batteries.	Ministry of Health and Environment	08/01	
Undertake a waste audit of Majuro.	Department of Public Works, Local Government, Ministry of Health and Environment	09/01	
Investigation of options and preparation of a funding proposal for an incinerator for Majuro.	Ministry of Health and Environment, Department of Public Works	02/02	
Initiation of a plastic bag education programme.	Department of Education, Ministry of Health and Environment	05/01	
Relocation of Uliga Elementary School and surrounding residents.	Ministry of Education, Ministry of Environment	05/01	
Preparation of a funding proposal for two large autoclaves for Majuro Hospital Medical Waste.	Paul Lalita, Ministry of Health and the Environment	06/06	

6.2 Action Plan for Existing Stockpiles

With the exception of pursuing the Basel and Waigani conventions there was no stockpiles of hazardous materials that the participants felt confident enough to attempt to remediate. The participants agreed that it was necessary for external expertise to be involved in any attempts to remediate the existing stockpiles.

7.0 RECOMMENDATIONS

Based on the training workshop outcomes, Golder Associates recommendations to achieve the defined project objectives in RMI are outlined in Table 3 below.

Table 3 – Recommendations Arising From Workshop

RECOMMENDATION	RESPONSIBILITY
1. Government officials should seek funding for an in country incinerator for municipal waste. A proposal for an incinerator has been with the US for approximately five years. It may be beneficial to seek funding elsewhere as well as continued pressure in regards to the proposal with the US.	Government officials
2. Basel and Waigani signature status should be procured from the Government of RMI.	Government officials
3. Upgrade hospital medical waste management facilities (autoclaves)	SPREP
4. Relocate current hospital incinerator practices from hospital grounds	Ministry of Health and the Environment
5. Upgrade environmental legislation via amendments to current acts to include adopted standards and codes of practice.	Ministry of Health and Environment
6. Reuse in country survey to include outer atolls, especially the Ebey atoll responsibility	Ministry of the Environment and Golder Associates

GOLDER ASSOCIATES PTY LTD

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APPENDIX A

Workshop Participants

WORKSHOP PARTICIPANTS

THE REPUBLIC OF THE MARSHALL ISLANDS

Name

Organisation

Workshop Participants (18)

Mijena Mijena	Majuro Energy Company
Hones Nenam	Majuro Energy Company
Albers Alik	Mobil Oil
Henry Capelle	Ministry of Resources and Development
Xavier Myazoe	Marshall Island Marine Resources Authority
Vincent Moses	Majuro Hospital
Elisha Elbi	Wotje Atoll Local Government
Stephen Lepton	Majuro Atoll Local Government
Jabukja Aikne	CMI Land Grant
Amlet Kalemén	CMI Land Grant
Paul Lalita	Majuro Hospital
Steve Balos	Majuro Water and Sewer Co.
Roselyn Anton	Arno Atoll Local Government
Morton Makroro	Jaluit Atoll Local Government
Alexander Noah	Pacific International Inc. (Construction)
Carlson Jacklick	Likiep Atoll Local Government
Debi McCartney	Consultant
Deborah Barker	RMI EPA

Facilitator:

David Hodge	Golder Associates
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