## REGIONAL WORKSHOP ON SAFETY OF RESEARCH REACTORS DECOMMISSIONING ACTIVITIES: PROJECT PLANNING, MANAGEMENT, REGULATORY REVIEW AND SAFETY ASSESSMENT

Manila, Philippines 15-19 September 2008

### Monday, 15 September 2008

### 09:00 – 09:30 Welcoming Addresses (A. dela Rosa and E. Warnecke)

Welcome by the host organization and IAEA. Provide overview of the workshop.

#### 09:30 – 10:30 Requirements for Decommissioning Planning (E. Warnecke)

Review requirements for decommissioning planning, push for the implementation of decommissioning plans, and highlight the more relevant aspects related to decommissioning planning and review.

#### 10:30 - 11:00 Break

### 11:00 – 12:00 Management of Decommissioning Projects (T. MacCool)

Discuss the overall management of a decommissioning project. Discuss the components of a decommissioning organization and the importance of proper staff personnel. Review the training requirements for decommissioning personnel. Review the quality assurance requirements associated with a decommissioning project. Review the principles of a good project schedule with specific examples pertinent to PRR-1.

#### 12:00 - 13:00 Lunch

### 13:00 – 14:00 Regulatory requirements (A. Gonzalez)

Discuss the factors affecting the regulatory process. Discuss the regulatory framework that should be in place to support the decommissioning process. Understand the responsibilities of the Member State, Regulatory Body and the Operator/Owner. Discuss the regulatory approval process.

## 14:00 – 15:00 Decommissioning Project of the PRR-1: Safety Related Documentation and Regulatory Review for PRR-1 Decommissioning Project (E. Valdezco)

#### 15:00 – 15:30 Break

## 15:30 – 16:30 Safety Related Documentation and Regulatory Review (A. González)

Describe the typical safety related documents that should be prepared to support the decommissioning process such as the decommissioning plan, the health and safety plan, waste management plan, etc. Provide details on development of these documents and the approval process. Spanish experience.

## **Tuesday, 16 September 2008**

### [Split on separate meeting rooms]

## 08:00-10:30 Peer Review Discussions with Operators' Member States Representatives (Facilitators: E. Warnecke, L. Boing and T. MacCool)

Discussion of the key aspects of the project: Strategy, transition, decommissioning plan, etc. Opportunities for improvement.

# 08:00-10:30 Peer Review Discussions with Regulator' Member States Representatives (Facilitators: H. Abou Yehia and A. Gonzalez)

Discussion of the key regulatory aspects of the review process: Milestones on the regulatory process, graded approach, regulatory position, etc. Opportunities for improvement.

#### 10:30 - 11:00 Break

#### 11:00 – 12:00 Decommissioning Planning (L. Boing)

Discuss the decommissioning planning process. Discuss the key points in the planning process. Cost Estimation. Review the basic work breakdown structure system and provide examples similar to the project PRR-1.

#### 12:00 - 13:00 The Transition Phase (H. Abou Yehia)

Identify how this phase relates to operations and decommissioning. Describe typical activities that are performed during this phase and organizational modifications that are needed and provide examples of similar situation to PRR-1.

#### 13:00 - 14:00 Lunch

## 14:00 – 15:00 Waste and Spent Fuel Management (L. Boing)

Describe the management of waste during decommissioning. Identify various waste streams that might be encountered during decommissioning. Explain the importance of having a good characterization of the waste and applicable management pathways identified for each category. Identify waste storage that may be implemented if permanent waste disposal facilities are not available. Provide particular examples of specific projects.

### 15:00 – 16:00 Spent Fuel Management (H. Abou Yehia)

Describe the management of spent fuel and various options. Identify spent fuel waste storage that may be implemented if permanent disposal facilities are not available. Provide particular examples of specific projects.

#### 16:00 – 17:00 Decontamination and Dismantling Technologies (T. MacCool)

Discuss the basic objectives of decontamination and dismantling activities. Explain the factors that should be used when selecting a technique. Describe various decontamination techniques for metal and concrete and discuss the advantages and disadvantages of the techniques. Discuss the importance of using proven systems. Provide particular examples of specific projects.

## Wednesday, 17 September 2008

08:30-10:00 Decommissioning plan overview of the PRR-1: Preparatory activities (characterization, transition phase, fuel management), incl. characterisation plan for PRR-1 and its input for the decommissioning plan. (L. Leopando)

10:00 – 11:30 Decommissioning project of the PRR-1: Implementation activities (decommissioning, dismantling and decontamination), incl. approaches, technologies and techniques. (L. Leopando)

11:30 - 12:00 Break

### 12:00 – 13:00 Member States Presentations on Decommissioning Plans

The representatives of Each Member State will present a draft decommissioning plan (operators).

13:00 – 14:00 Lunch

#### 14:00 – 15:00 Member States Presentations on Decommissioning Plans (Continuation)

The representatives of Each Member State will present a draft decommissioning plan (operators).

## 15:00 – 16:00 Member States Presentations on Decommissioning Plans Regulatory Review Process

The representatives of Each Member State will present the regulatory review process in all phases of decommissioning (regulators).

16:00 - 16:30 Break

## 16:30 - 17:30 Member States Presentations on Decommissioning Plans and Regulatory Review Process (Continuation)

The representatives of Each Member State will present the regulatory review process in all phases of decommissioning (regulators).

## Thursday, 18 September 2008

08:30-10:30 Decommissioning Project of the PRR-1: Management organization; management system. Cost estimate and financial mechanisms (M. Espinal / F. Santos)

10:30 - 11:00 Break

11:00 – 13:00 Decommissioning Project of the PRR-1: Waste Management (E. Marcelo)

13:00 - 14:00 Lunch

[Split on separate meeting rooms]

## 14:00 – 17:30 Peer Review Discussions with Operators' Member States Representatives (Facilitators: E. Warnecke, L. Boing and T. MacCool)

Discussion of the key aspects of the project: Strategy, transition, decommissioning plan, etc. Opportunities for improvement.

## 14:00 – 17:30 Peer Review Discussions with Regulator' Member States Representatives (Facilitators: H. Abou Yehia and A. Gonzalez)

Discussion of the key regulatory aspects of the review process: Milestones on the regulatory process, graded approach, regulatory position, etc. Opportunities for improvement.

## Friday, 19 September 2008

0830 - 1030 Peer Reviews Presentations (Operators and Regulators)

1030 - 1100 Break

1100 – 12.30 General Discussions and Conclusions (All)

1230 – 1300 Closing Address (C. Bernido and E. Warnecke)