

Report of Working Group 3

On “*Materials Management Including Building Release and Clean-Up of the Site*”



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DECOMMISSIONING PLAN OF VVR-S RESEARCH NUCLEAR REACTOR

REVISION No. 9



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IAEA

International Atomic Energy Agency

**10th Workshop on the Review of a
Romanian Decommissioning Plan
in Conjunction with
Research Reactor Decommissioning and
Demonstration Project (R2D2P)
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Group Members

1. Pablo Grossi - Brazil;
2. Endang Kurnia - Indonesia;
3. Anwar A. Fattah Ahmed - Iraq;
4. Ibrahim Muhamad - Malaysia
5. Antonio Hernandez Maldonado - Mexico;
6. John M. Marquez - Philippines;
7. Radojica Pesic - Serbia; and
8. Romanian colleagues;

Expert Consultant : Mr. Patrick O'Sullivan

...after initial Brainstorm

- ❖ Basic Concept of Material Management;
- ❖ Material Management;
 - Waste Management Plan
 - Classification of Waste
 - Radwaste
 - Non-Radwaste
 - Treatment and Conditioning
 - Transport
 - Storage and Disposal
 - Decontamination Plan
 - Control and Surveillance
- ❖ Clean-up and Release of Building and Site;
- ❖ Final Radiation Survey

SAFETY REPORTS SERIES No. 45

STANDARD FORMAT AND CONTENT FOR SAFETY RELATED DECOMMISSIONING DOCUMENTS

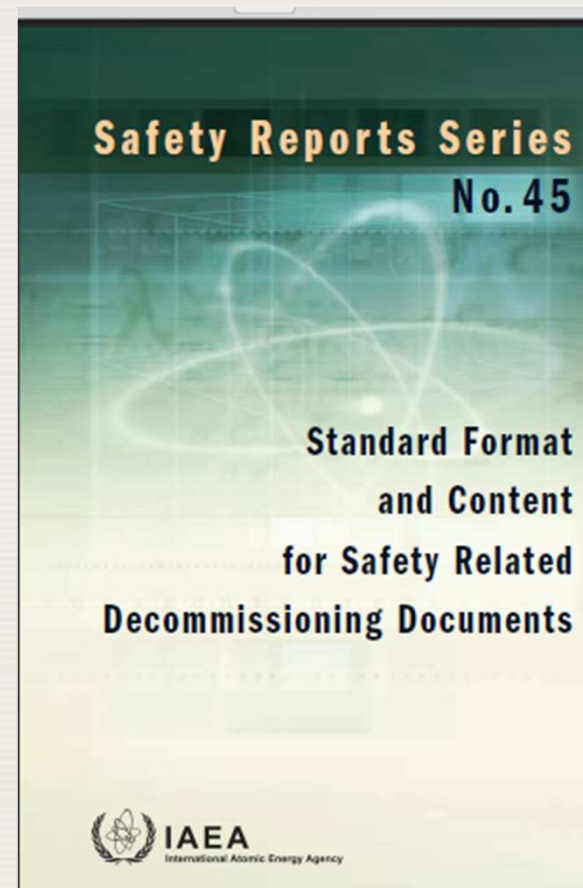
3. DECOMMISSIONING PLAN DETAILS

3.7. Waste Management

3.15. Final Radiation Survey

4. RELATED DOCUMENTS

4.3. Final Radiological Survey Plan



Results of the Evaluation

- An evaluation of the DP for the topics of WG#3 was performed as follows:



Conclusions and Recommendations (1/5)

- Considering the results of the assessment, the activities listed on phase 1 of the DP are authorized.
- Before starting decontamination and dismantling the following documents should be provided for approval:
 - *Waste Management Plan*
 - *Decontamination Plan*
 - *Final Radiation Survey Plan (before phase 3)*

Conclusions and Recommendations (2/5)

- The description of the procedures for:
 - Waste Tracking System
 - Treatment; Conditioning; Packaging; and Storing of waste on-site (prior to shipment for disposal) for solid, liquid and mixed.
 - Measures to reduce the volume of waste
 - Monitoring; Assaying; and characterizing the waste for solid, liquid and mixed.

Conclusions and Recommendations (3/5)

- The following requirements should be complied:
 - Limit levels for each different waste classification should be provided, to allowing a reliable estimation of the volume of different waste classes.
How the assessment of waste generated (Appendix 7.2.1) was performed without this limits?
 - Need to consider soil as one of identified solid waste to be managed.
 - The disposal of the resins should be defined.

Conclusions and Recommendations (4/5)

- The following requirements should be complied:
 - The radionuclide inventory and when it will be generated should be mentioned for solid, liquid and “mixed” radioactive waste.
 - A summary of the types of solid and liquid waste containing both radioactive and other hazardous materials expected to be generated during the decommissioning process.

Conclusions and Recommendations (5/5)

- The WG#3 consider that independent authorizations for each decommissioning phase could eventually drive to a non-completion of whole decom. process:
 - Some documents cited on DP are not available because they were not prepared yet, just general directives were given
 - Some regulatory requirements could never be achieved after starting decommissioning activities (it is a probability!!!)
 - It is necessary to have well established limits for each authorized phase (divergences between Reg. and Oper.)
 - Positive point: gradual approach to the decommissioning planning and activities

End Slide

Mulțumesc !!!

Thank you for your attention!