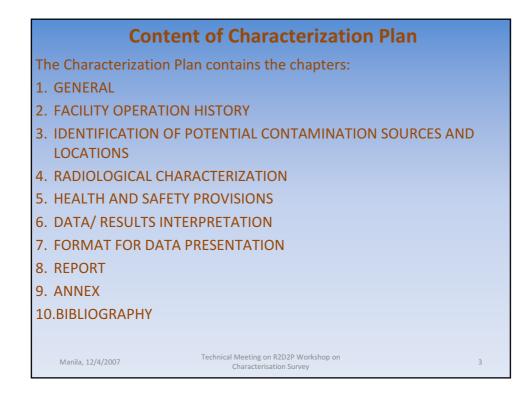
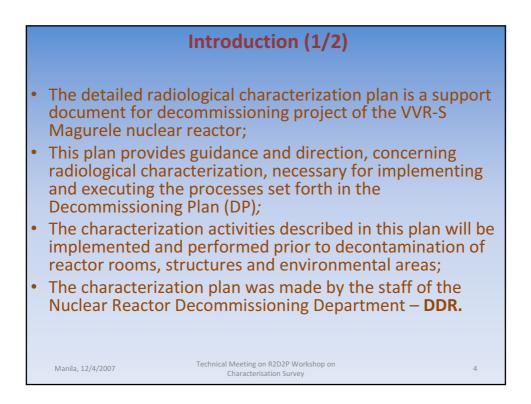


	Outline	
•	Content of Characterization Plan	
•	Introduction	
•	Objective	
•	Operation of VVR-S	
•	The Owner of VVR-S	
•	The Preservation License	
•	Decommissioning Area	
•	History of Activities	
•	Potential Contamination Sources and Locations	
•	Buildings Characterization	
•	Contaminated/ Activated Systems and Equipment	
•	Sampling of Environment	
•	Preliminary Operations for Characterization	
•	Activation Products	
•	Equipment for Characterization	
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Introduction (2/2)

For the implementation of radiological characterization plan and of clean-up activities the following points are considered:

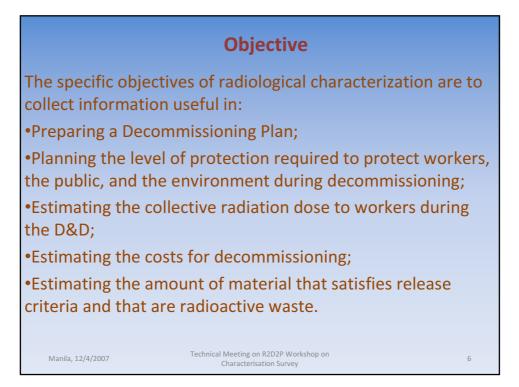
•Analysis of the historical information (data and previous radiological characterizations);

•Facility description, site location and environmental assessments of the decommissioning area;

•Define clear the purpose of the radiological characterization in order to acquire information necessary for preparing the cost estimates and the risks involved in clean-up and decommissioning activities as well as the amounts and the categories of waste arising from these activities.

Manila, 12/4/2007

Technical Meeting on R2D2P Workshop on Characterisation Survey



Operation of VVR-S

 The reactor was designed to provide experimental activities for research and radioisotopes production in a thermal neutron flux of max. 2x10¹³ n/cm²sec, at an operating power level of 2 MW.

- The Construction of the VVR-S Nuclear Reactor began in 1955 and criticality was attained on July 29, 1957 with a fuel loading of 4.5 kg of ²³⁵U. Its last shut down was on July 1997. All of the fuel (10% ²³⁵U until 1984, and 36% ²³⁵U after this date) was removed from reactor core to the Cooling Pond (Reactor Hall) and the basins of Spent Nuclear Fuel Storage (Building No. 20).
- The facility operated 113467 h at a power of 2 MW and 2000 h at a power of 3.0-3.5 MW. The total thermal energy produced was 9510 MWd.
- In 2002, the Romanian Government approved the final shutdown of the VVR-S reactor and its decommissioning.

Manila, 12/4/2007

Technical Meeting on R2D2P Workshop on Characterisation Survey

The Owner of VVR-S

- National Institute for Research & Development for Physics and Nuclear Engineering - Horia Hulubei (IFIN-HH) is a state institution that is subordinated to The Ministry of Education and Research. The main activity is Research & Development fundamental and applied research, technological development, activities and services in the field of physics and nuclear engineering.
- VVR-S Nuclear Reactor for Research and Radioisotope Production is a public property under the licensed administration of IFIN-HH.

Manila, 12/4/2007

Technical Meeting on R2D2P Workshop on Characterisation Survey

The Preservation License

The work for characterization survey was performed under the Preservation License issued by Regulatory Body (CNCAN) within the following limits and conditions:

•It is forbidden the charging of the reactor core with nuclear fuel.

•As concerns the reactor itself, the limits and technical conditions applicable for its preservation in compliance with the operation and maintenance instructions have to be taken into consideration.

•As regards the Cooling Ponds and Spent Nuclear Fuel Storage (DCNU), the limits and the applicable technical conditions specified in the Final Safety Reports have to be taken into consideration.

Manila, 12/4/2007

Technical Meeting on R2D2P Workshop on Characterisation Survey

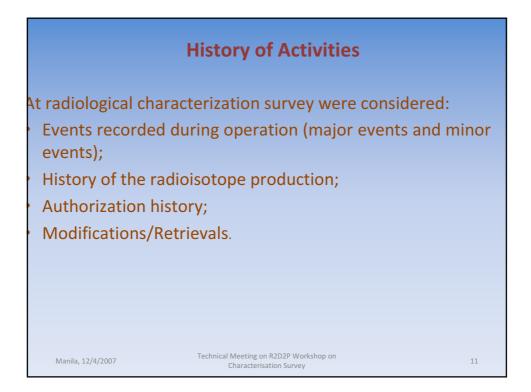
Decommissioning Area

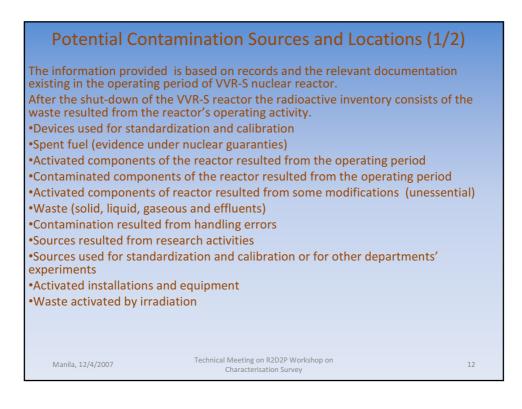
- Decommissioning activities of VVR-S Nuclear Reactor will take place on a 7500 m² surface. Almost half of this surface, around 3400m², is occupied with buildings (main buildings incorporates reactor building (hall and basement) and laboratories building (85 rooms)), metallic structures for material storage, underground emplacement and pipes.
- The decommissioning project of VVR-S Nuclear Reactor takes into account buildings with activated or contaminated structures, including those in which nuclear spent fuel or radioactive waste arising from operational period are stored.

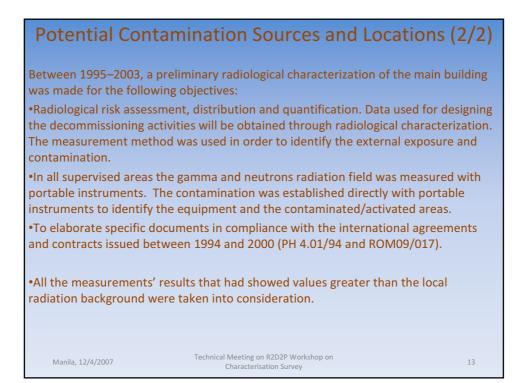
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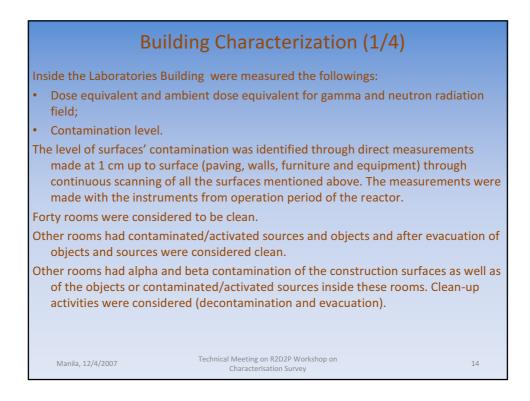
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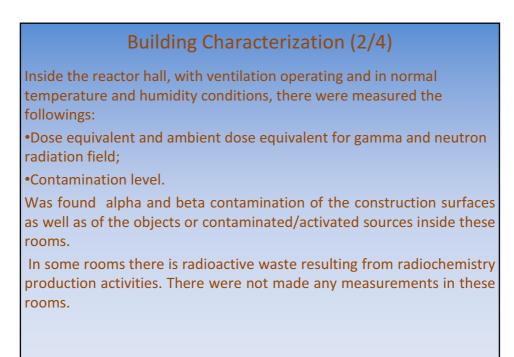
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Manila, 12/4/2007

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15

