

Decommissioning Process “Dismantling PCV/RPV/Buildings”Investigation Subject **“Understanding current status”**Issue **“Understanding the properties and the volume of dismantled materials”****Needs****1. Understanding the properties and the volume of dismantled materials**

Dismantling PCV/RPV/Buildings : [Long 1]

Desired state and reasons for it

- In order to formulate a reasonable dismantling work plan and a waste processing plan, it is desirable to understand what kind and how much waste with what properties will be generated before dismantling the PCV/RPV/buildings.

Current state against ideal

- The “Mid-and-Long-Term Decommissioning Action Plan 2024” released by TEPCO on March 28, 2024, does not indicate a specific period for dismantling PCV/RPV/buildings, and it shows limited studies on what methods and procedures will be used to dismantle the buildings, and limited estimates on the amount of waste generated during building dismantlement (TEPCO estimates that the fuel debris removal preparation work will generate approximately 300,000 m³ of waste generated by dismantling of the buildings around Units 1 to 4 including resin and other waste generated before the earthquake).
- On the other hand, for the purpose of internal investigation in the PCV/RPV for fuel debris removal and environmental improvement in fuel debris removal work, implementation studies of radiation source investigation and decontamination in the building and related R&D activities are being conducted in parallel with these activities. In particular, the remote removal or decontamination of highly contaminated pipes is considered important for the fuel debris removal from Unit 2, where the radiation dose in the reactor building is higher than in Units 1 and 3.
- In addition, for the purpose of utilization in the safety assessment of fuel debris removal, data are being collected on the dispersion and migration behavior of dust generated by machining and cutting of fuel debris in dry and wet environments.

Issues to be resolved

- It is necessary to understand the contamination status with reference to residual fuel debris, etc. in the PCV/RPV/building, which will be grasped during debris retrieval operations to be carried out in the future.
- Since the properties and quantity of dismantled materials are greatly affected by the contamination status, it is desirable to resolve this issue in conjunction with Issue No. Dismantling-101.

Relevant Issues

- DRB-202 "Establishing sorting criteria by alpha, beta and gamma contamination"
- DRB-203 "Developing dismantling scenario and sorting strategy"
- DRB-204 "Establishing work sequence"
- BST-001 "Remote control technology"