

Decommissioning Process **“Transport/Storing/Storage (including Wastes containing Alpha Nuclides originating from Fuels)”**

Investigation Subject **“Maintaining stabilized condition”**

Issue **“Criticality control”**

Needs

1. Maintaining the subcriticality status of fuel debris

Desired state and reasons for it

- In order to maintain the subcriticality status of fuel debris during transport, storing and storage, it is necessary to investigate criticality scenarios and perform criticality management by monitoring and with a criticality detection system.

Current state against ideal

- It is planned that the retrieved fuel debris is stored in a canister that can maintain the subcritical state, and stored appropriately.

Issues to be resolved

- Considering fuel debris properties obtained from the outcomes of the experimental retrieval, etc., it is necessary to investigate the on-site applicability of the subcriticality maintaining scenario from the viewpoint of the operational constraints assumed in the fuel debris retrieval work and storing process, etc.

Relevant Issues

- TSR-101 “Characterization”
- TSR-201 “Technology development to assess and manage storage container integrity”
- TSR-204 “Design of canister specifications”
- TSR-301 “Transport/storing/storage method investigation”