

Steam Generator Dismantling – Building Enhancement and Rip for Ship

Rip and ship is a method to dismantle large components such as SG from the nuclear power plant as entire, intact piece for further processing or disposal off-site, rather than being segmented or dismantled in place

Framatome provides a perfectly streamlined ripping phase of the rip & ship concept, to efficiently and reliably extract steam generators from the containment, saving lead-time and significantly simplifying waste management.

Challenge

The removal of the steam generators is an important milestone in the dismantling schedule of a nuclear power plant, where stringent safety requirements need to be met.

Solution

Framatome addresses these challenges by presenting a streamlined approach to steam generator removal in the frame of the Rip & Ship concept. We offer comprehensive competences for the entire ripping phase, including necessary building modifications, project planning, and on-site execution, ensuring safe and efficient extraction of steam generators. Our competences include:

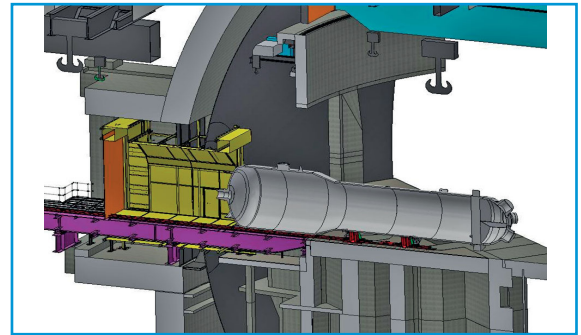
- Licensing of all required building equipment
- Modification of the material hatch and load bridges, while maintaining all required security aspects
- Lifting of the steam generators and extracting them from the controlled area, making them available for shipment or further treatment at the nuclear site

Our solution reduces dismantling activities inside the containment and prepares the steam generators for shipment to a treatment facility, optimizing both safety and waste management while keeping the project on schedule.

Customer benefits

- Minimization of radiation exposure
- Security on the critical path of dismantling activities
- Comprehensive support for all RIP-related topics, from planning, detailed engineering, licensing to on-site execution
- Significant reduction of radioactive waste and handling of radioactive components on-site
- Robust and proven concept that is well-acknowledged by authorities

Your performance
is **our** everyday **commitment**



Visualization of building modifications required for safe SG-extraction: the new, adapted material hatch in yellow, the heavy load bridges in purple and the licensed portal crane for heavy lifting in light blue.

Technical information

Preparatory work to extract the steam generators:

- Construction of a new, enlarged material hatch to accommodate the size of the steam generators while maintaining the integrity of the building's security.
- Removal of the existing material hatch, including concrete structures
- Installation of heavy-duty bridges both inside and outside the building to transport the steam generators through the new closure of the controlled area.

Lifting of the steam generators:

- Licensing of the building crane, so it is allowed to lift the steam generators (normally surpassing the maximum limit of the crane)
- Removal of interfering edges to prevent collisions in the lifting process
- Lifting of the steam generators, extracting them through the material hatch and safely depositing it on the outside terrain

Key facts:

- last execution **2025**
- **36 h** extraction time / SG

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