



## **EPRI Support of TEPCO**

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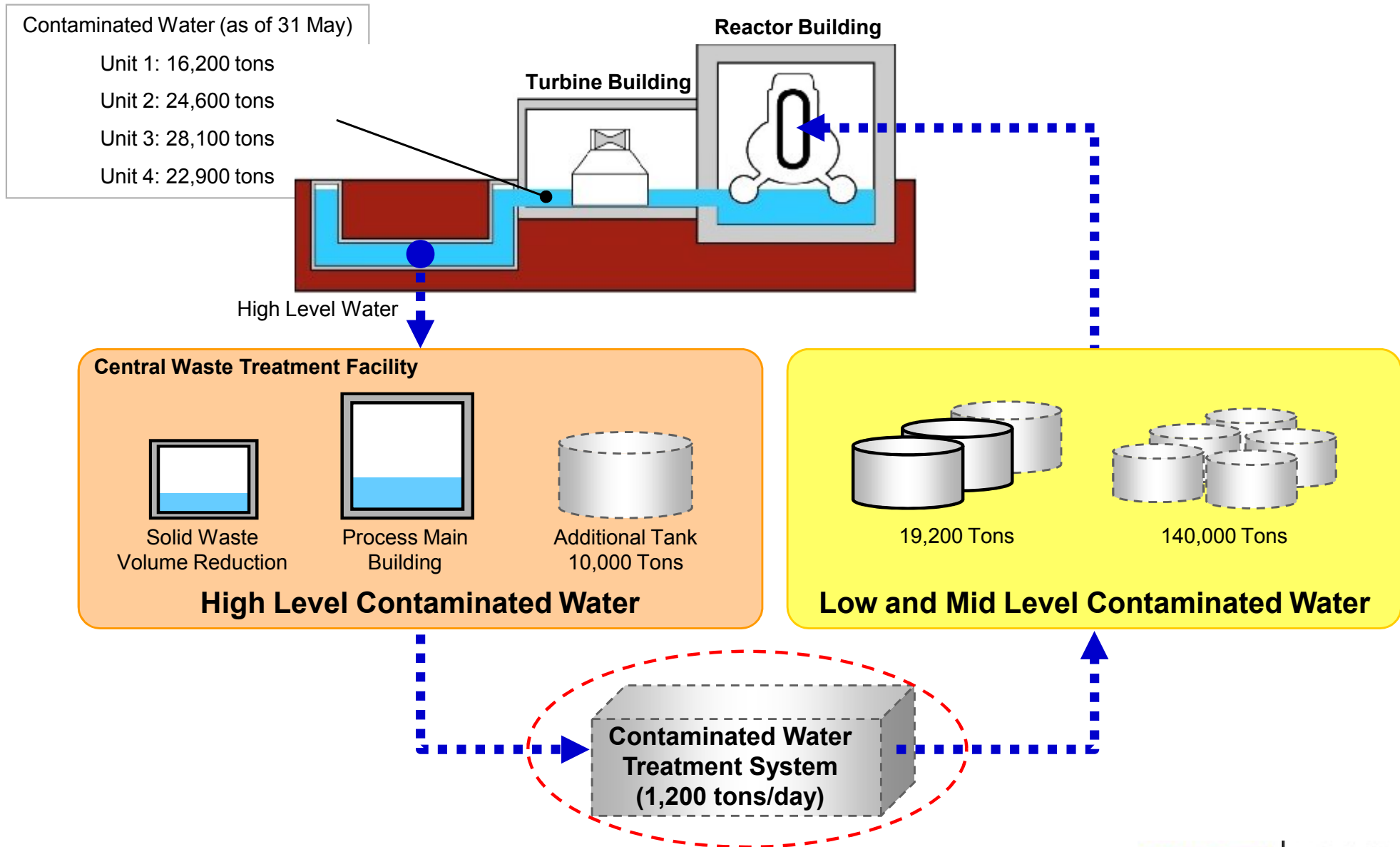
# Direct Support of TEPCO

- Technical assistance to Industry Support Team (IST)
- Evaluated and recommended corrective actions for the spent fuel pools at Fukushima Dai-ichi (1F)
  - Estimated time to cracking of the stainless steel liners in Fukushima spent fuel pools
  - Identified and suggested mitigation approaches
- Summarized US information related to criteria and monitoring tools for the return of the evacuees

# Direct Support of TEPCO

- Support the design of contaminated water treatment systems
  - Media selection addressed performance in harsh saltwater and high activity conditions
  - System design addressed oil, salt and contamination removal and implementation and maintenance for high radiation field
  - Systems started operation in June 2011
- Independent assessment of Fukushima Daini (2F)
  - First step towards possible restart of 4 units

# Contaminated Water Treatment System and Circulating Water Injection System



# Contaminated Water Treatment System



**Oil Separator**



**Desalination**



**Cesium Adsorption Tower**



**Decontamination**

# EPRI Fukushima Daini Independent Review and Walkdown



*Report 1023422 published in  
August 2011*

- **Seismic impact**
- **Tsunami**
- **Safe Shutdown**

Informing industry knowledge of seismic impacts

# Post-Fukushima Technical Evaluation

Similar to an NTSB investigation:

- **Objective technical record**
- What happened?
- Why did it happen?
- Understand the physics
- Update codes and models
- Inform future decisions



**EPRI did the same after Three Mile Island**

# Objectives

- Understand what occurred in order to prevent similar accidents
- Establish a repository of critical event data, decisions and insights from the accident timeline
- Document the progression of events in the Fukushima Daiichi reactors, containments, reactor buildings and spent fuel pools
- Document the radiological plume dispersion and contamination in the vicinity of the Fukushima Daiichi Plant
- Produce a report to help evaluate potential improvements in plant design, operation and mitigation strategies



# Project Deliverables

- A comprehensive final report with:
  - a highly detailed sequence of events (support by analysis)
  - a comparison of that sequence of events with those from other sources
  - phenomena evaluations
- A series of detailed reports on various issues important to the evolution of the event



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