Overview of Modifications to the Monju Prototype Fast Breeder Reactor

Purposes of Modifications
1. Prevent any sodium leaks
2. If a leak occurs, detect it promptly and prevent spread of problems

Temperature Gauge Replaced
- Prevent vibration of the temperature gauge (prevent damage)
- Prevent sodium leaks from temperature gauge

Sodium Leak Countermeasures
- Promptly detect any sodium leaks
- If a leak is detected, immediately withdraw sodium in the lines to the tank (using larger lines and redundancy of motor-driven valves)
- If a sodium leak occurs, inject nitrogen gas into the chamber (extinguish by smothering)

Make Evaporator Safer
- Reliable detection of water leaks
- If a problem occurs, promptly discharge water/steam in heat transfer lines (quickly stop reaction between sodium and water)