

Corrosion test facility to simulate plant start-up and shutdown operation

Purpose:

Evaluation of dissolution behavior of corrosion products during plant start-up and shutdown operation is a very important subject from the point of view of reducing radiation exposure. This facility is constructed to evaluate corrosion behavior of materials under simulated plant start-up and shutdown conditions.

Outlines:

To simulate plant start-up and shutdown operation conditions, the high temperature and high pressure loop system has multiple chemical injection systems and autoclaves for installation of specimens.

Specifications:

Temperature : Max 350 °C

Pressure : Max 20MPa

Structural material : Ni based alloy

Chemical injection system : 4 lines

Tuning parameter : Temperature, pH(B and Li concentration), DO, DH, H₂O₂ concentration

Location and Date of Installation:

Yokosuka Campus, March 2006



Chemical injection system



High temperature and high pressure loop system



Autoclave to install specimens