

Profile LFR-50

TEST STAND FOR FUNDAMENTAL LBE TECHNOLOGY

JAPAN

GENERAL INFORMATION

NAME OF THE FACILITY Test stand for fundamental LBE technology
ACRONYM
COOLANT(S) OF THE LBE
FACILITY
LOCATION (address): 2-4, Oaza-Shirakata, Tokai, Naka, Ibaraki, Japan
OPERATOR JAEA
CONTACT PERSON Toshinobu SASA
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STATUS OF THE FACILITY Stanby
Start of operation (date): 2014

MAIN RESEARCH FIELD(S)

- Zero power facility for V&V and licensing purposes
- Design Basis Accidents (DBA) and Design Extended Conditions (DEC)
- Thermal-hydraulics
- Coolant chemistry
- Materials
- Systems and components
- Instrumentation & ISI&R

TECHNICAL DESCRIPTION

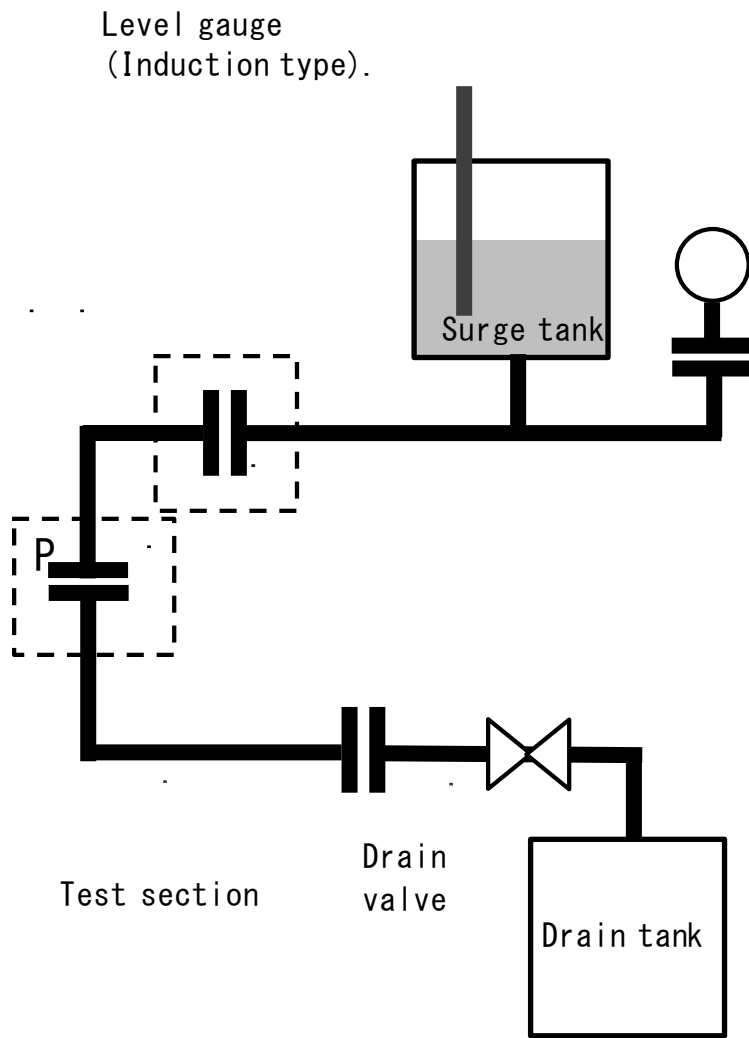
Description of the facility

The purpose of the test stand is to develop LBE technologies including remote handling techniques, freeze-sealed drain valve and instruments.

Acceptance of radioactive material

No

Scheme/diagram



3D drawing/photo



Parameters table

Coolant inventory	50 litre
Power	6.5 kW
Test sections	
TS #1	<u>Characteristic dimensions</u>
	<u>Static/dynamic experiment</u> Static experiment
	<u>Temperature range in the test section (Delta T)</u> 200-450°C (0°C)
	<u>Operating pressure and design pressure</u> 0.5 MPa
	<u>Flow range (mass, velocity, etc.)</u> No flow
Coolant chemistry measurement and control (active or not, measured parameters)	Oxygen concentration are not measured and not controlled.
Instrumentation	Thermo couple, pressure gauge, level gauge

COMPLETED EXPERIMENTAL CAMPAIGNS: MAIN RESULTS AND ACHIEVEMENTS

No

PLANNED EXPERIMENTS (including time schedule)

- (1) Remote handling test on flange and package heater
- (2) Freeze-sealed valve test
- (3) Instruments test (level gauge and pressure gauge)

TRAINING ACTIVITIES

No.

REFERENCES (specification of availability and language)

No.