

Profile LFR-77

POST

CHINA

GENERAL INFORMATION

NAME OF THE FACILITY	POlonium test STand
ACRONYM	POST
MEDIUM (COOLANT(S)) OF THE FACILITY	LBE/pure lead/Po-210
LOCATION (address):	CNPRI, Shenzhen, China
OPERATOR	CNPRI
CONTACT PERSON(S)	Jiming Lin
(name, address, institute, function, telephone, email):	China Nuclear Power Technology Research Institute (CNPRI) 0755-88617716 linjiming@cgnpc.com.cn

STATUS OF THE FACILITY	In operation
Start of operation (date):	2018

MAIN RESEARCH FIELD(S)	<input type="checkbox"/> Zero power facility for V&V and licensing purposes
	<input type="checkbox"/> Design Basis Accidents (DBA) and Design Extended Conditions (DEC)
	<input type="checkbox"/> Thermal-hydraulics
	<input checked="" type="checkbox"/> Coolant chemistry
	<input type="checkbox"/> Materials
	<input type="checkbox"/> Systems and components
	<input type="checkbox"/> Instrumentation & ISI&R

TECHNICAL DESCRIPTION

Description of the facility

The main purposes of the POST are: a) to evaluate filtration efficiency of Po-210 treatment unit; b) Volatilization of Po-210 in LBE in normal and accident conditions;

Acceptance of radioactive material

Yes

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Scheme/diagram

3D drawing/photo



Parameters table

Medium (Coolant) inventory	LBE 5g
Power	5kw
Test sections	
TS #1	<u>Characteristic dimensions</u> LBE 5g, Po-210 < 1000Bq
	<u>Static/dynamic experiment</u> <u>Static/dynamic</u>
	<u>Temperature range in the test section (Delta T)</u> 200-1000°C (800°C)
	<u>Operating pressure and design pressure</u> ambient
	<u>Flow range (mass, velocity, etc.)</u> not
Medium (Coolant) chemistry measurement and control (active or not, measured parameters)	not
Instrumentation	not

COMPLETED EXPERIMENTAL CAMPAIGNS: MAIN RESULTS AND ACHIEVEMENTS

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PLANNED EXPERIMENTS (including time schedule)

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TRAINING ACTIVITIES

Training activities are possible, availability allowing and after prior agreement under supervision of CNPRI Qualified staff.

REFERENCES (*specification of availability and language*)

No