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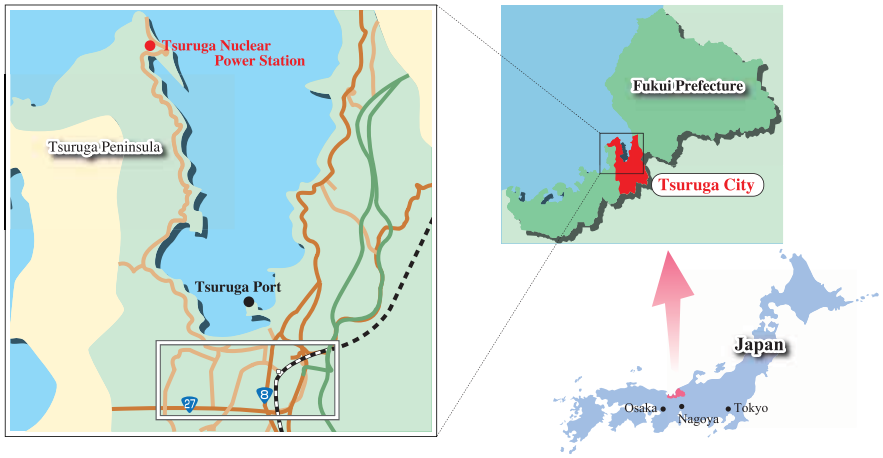


Access to Tsuruga

Car
(from each interchange - Tsuruga interchange exit)

· Kyoto	Approx.	1h 30m (120km)
· Osaka	Approx.	2.00h (170km)
· Nagoya	Approx.	1h 30m (120km)
· Tokyo	Approx.	5h 30m (450km)

Shinkansen/Limited Express
(from each JR Station - Tsuruga station)

· Kyoto	Approx.	55m
· Osaka	Approx.	1h 20m
· Nagoya	Approx.	1h 30m
· Tokyo	Approx.	3.00h

Tsuruga Training Center
The Japan Atomic Power Company
165-9-6, Kutsumi, Tsuruga-city,
Fukui Prefecture, 914-0823 JAPAN
TEL : +81−770−21−9700
FAX : +81−770−21−9725
H P : http://www.japc.co.jp

Mar. 2013

Tsuruga Training Center

Introduction

Tsuruga Training Center was established in Kutsumi, Tsuruga-city in 2012 as a training facility to provide systematic training. Trainees can learn safety culture and safety technology related to nuclear power through lectures and workshops. As well as JAPC associates, this center is also opened for engineers from local companies, electric utilities, affiliated companies and students in Japan and from the overseas.
The following are the training and vocational education programs provided in Tsuruga Training Center.

Training for JAPC associates

We provide the training for our staff in order to develop human resources necessary to reinforce the management foundation of JAPC as well as to correctly and safety operate and maintain nuclear power plants.

1. General training for all JAPC employees
2. Specialized training for technical staff
   - -On design, construction, operation, maintenance and decommissioning
   - -Practical and theory training for operation and maintenance
   - -Radiation protection - Industrial safety - Quality management system
3. Training for obtaining qualifications

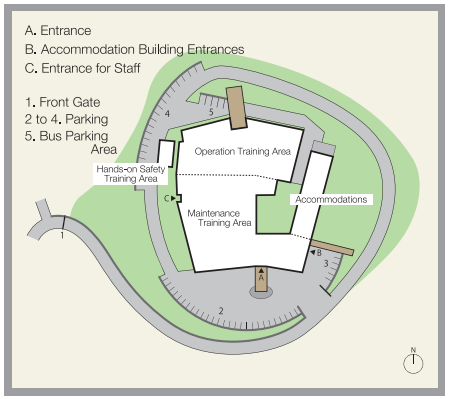
Open Seminar

Tsuruga Training Center has been placed as one of the elements of “Energy R&D Centralization Plan” of Fukui prefecture. While nuclear power plants have been simply regarded as power generating factories, this plan aims to realize a hub for comprehensive R&D of nuclear power and energy by taking advantage of the prefecture’s characteristics where various types of nuclear reactors and nuclear facilities are located.
Based on this concept, we provide open seminars that develop human resources on nuclear energy to achieve nuclear safety. These open seminars, systematic training courses with distinguishing characteristics described as below, are available to engineers, students, and trainees in Japan and from the overseas.

1. Training to maintain, improve and inherit the nuclear safety culture, in other words safety culture where the activities to ensure that the highest priority is placed on the nuclear safety, and the nuclear safety technology that is the essential to secure the safety of the reactors.
2. Training using the Compact Simulator with the latest simulation software installed.
3. Advanced and substantial training conducted in cooperation with personnel with sufficient skill and knowledge in nuclear energy and various nuclear facilities by fully taking advantage of the characteristic of Fukui, the hub for nuclear industry.

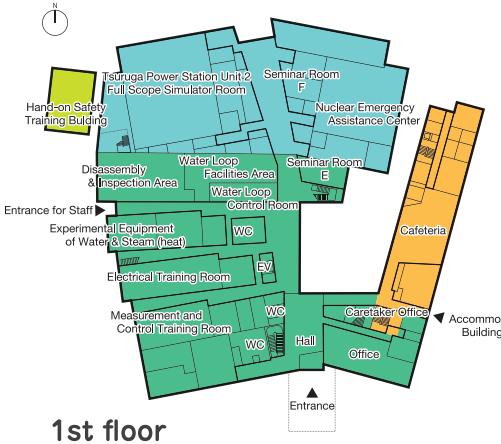
As mentioned above, Fukui prefecture has many nuclear related organizations and universities, and thus we cooperate with them to train human resources in the nuclear power industry by utilizing each facility’s advantages. Similarly, as the brand-new training facility established in Fukui, Tsuruga Training Center provide training including lectures and workshops of nuclear safety culture and nuclear safety technology in cooperation with related facilities and organizations.

Outline of the Facility

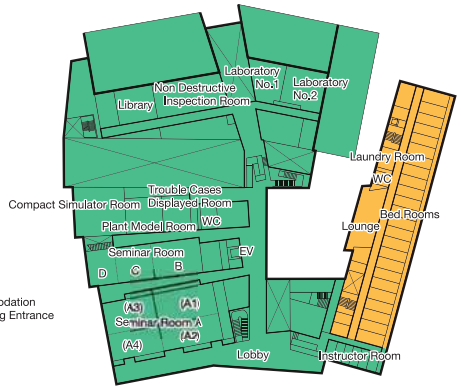


Establishment	October 1, 2012	
Address	165-9-6, Kutsumi,Tsuruga-city, Fukui Prefecture	
Total Site Area	28,556㎡	
Class of Construction	Two-storied reinforced concrete and partially steel- reinforced construction, steel construction (partially three-storied)	
Total Building Area	8,900㎡	
Main Facilities	Operation Training Area	(1,900㎡)
	Maintenance Training Area	(5,300㎡)
	Hands-on Safety Training Area	(100㎡)
	Accommodations	(1,600㎡)

Floor Plan



1st floor



2nd floor

Operation Training Area
Maintenance Training Area
Hands-on Safety Training Area
Accommodations

3rd floor

Operation Training Area (1st floor)

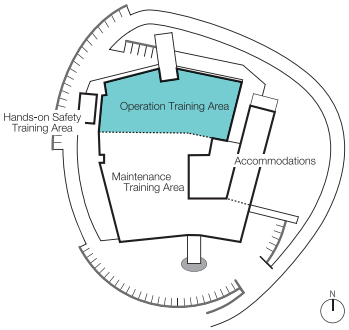
Tsuruga Power Station Unit 2 Full Scope Simulator is installed in Operating Training Area. By using the Full Scope Simulator, operators can train their operation skills corresponding to various plant conditions, improving the capability of operators. Operation Training Area also has Seminar Room F and Rest Area.

View from Instructor Room

Operation Training of Full Scope Simulator

Tsuruga Power Station Unit 2 Full Scope Simulator

This Simulator is designed to provide training exclusively for Tsuruga Power Unit 2 operators. The training corresponding to various plant accidents and conditions is implemented by using the Simulator with the latest simulation software installed. The Simulator works together with Local Panel Room where trainees can simulate to operate equipment actually installed in Tsuruga Power Unit 2 such as pumps, motors, and valves. Also, cooperative operation between operators in Main Control Room and in local area is available.



Tsuruga Power Station Unit 2 Full Scope Simulator

Local Panel Room

Seminar Room F

Rest Area

Maintenance Training Area (1st floor)

Maintenance Training Area is located in the 1st and 2nd floors. Various types of equipment are available in the 1st floor so that trainees can systematically acquire the knowledge and skills necessary for nuclear power plant maintenance. We place emphasis on the training approach in which trainees learn from their experience by utilizing, touching and feeling real equipment in our training. Maintenance Training Area has Seminar Room E and Rest Area.

Water Loop Facilities

Water Loop Control Room

Experimental Equipment of Water & Steam (Heat)

Major Facilities

1 Water loop facilities

Water loop facilities consist of pipes, pumps, valves, tanks, heat exchangers, support structures, instruments, and other devices.

2 Electrical and measuring equipments

High or low switch-gears, motors, motor-operated valves, uninterruptible power supply equipment, sequencer panels, ex-core nuclear instrumentation panels, radiation monitoring panels, and other devices.

3 Equipment for practical training on water & steam(heat)

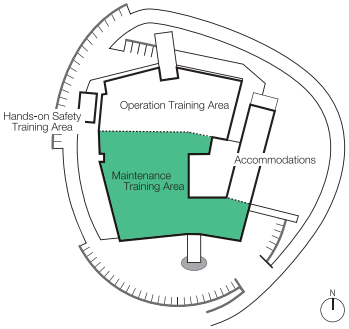
Equipment for understanding the behavior of water, steam and heat (water flow, boiling, two-phase flow, heat transfer, etc.), performance of pumps, and cavitations

4 Welding equipments

Equipments for ARC welding and TIG welding

5 Others

Pumps, valves, and cutaway models, and other materials



Electrical Training Room

Measurement and Control Training Room

Cutaway models

Rest Area

Seminar Room E

Maintenance Training Area (2nd floor)

The second floor of Maintenance Training Area consists of Compact Simulator Room, Non Destructive Inspection Room, and Laboratory for practical training of radiation control and water chemistry, Plant Model Room, and Trouble Cases Displayed Room. Also, there are four seminar rooms: Seminar Rooms A, B, C, and D, as well as the library and lobby.

Educational Simulator of Nuclear Power Generation (Compact Simulator Room)

Laboratory No.1

Laboratory No.2

Plant Model Room

Trouble Cases Displayed Room

Major Facilities

1 Educational Simulator of Nuclear Power Generation

Educational Simulator installed with simulation software of Tsuruga Power Station Unit 2 and Tokai No.2 Power Station Full Scope Simulator to understand the characteristics and behavior of each plants.

2 Plant models

Panoramic view of the nuclear power plant, reactor, steam generator, fuel assembly, and other devices.

3 Radiation meters

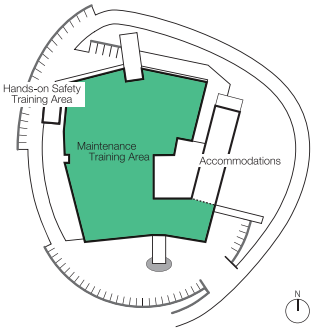
Ge semiconductor measuring devices, survey meters of scintillation dose rate, GM model contamination survey meters

4 Chemical analysis equipments

pH meters, electrical conductivity meters, digital microscope

5 Inspection devices

Inspection devices and measuring instruments for equipment diagnosis (vibration, motor oil, and infrared) such as magnetic particle examination and ultrasonic examination.



Non Destructive Inspection Room

Seminar Room B

Seminar Room C

Seminar Room A

Seminar Room D

Library

Lobby

Hands-on Safety Training Area

Trainees can experience dangerous works simulated in this area such as work in a high place, work at rotating devices, slinging work, electrical work, and fire in this Hands-on Safety Training Area.

Exterior of Hands-on Safety Training building

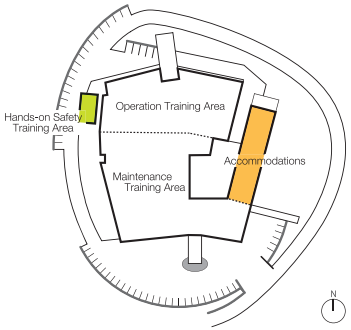
Hands-on Safety Training Equipment

Accommodations (1st to 3rd floor)

All of Tsuruga Training Center facilities such as air conditioning systems, hot-water supply systems and cooking devices are powered by electricity. We are cost-effectively operating the facilities by the use of inexpensive electricity during the night.
Accommodations consist of Bed Rooms (single type) with bathroom, Cafeteria, Lounge, Laundry Room, and Shared Bathroom.

Bed Room (single type)

Bathroom



Accommodations

Cafeteria (1st floor)

Lounge (2nd floor)

Shared Bathroom (3rd floor)

Laundry Room (2nd and 3rd floors)