

## Section 4: 2019 Comprehensive Nuclear Emergency Response Exercise

### 4-1 Overview of Exercise

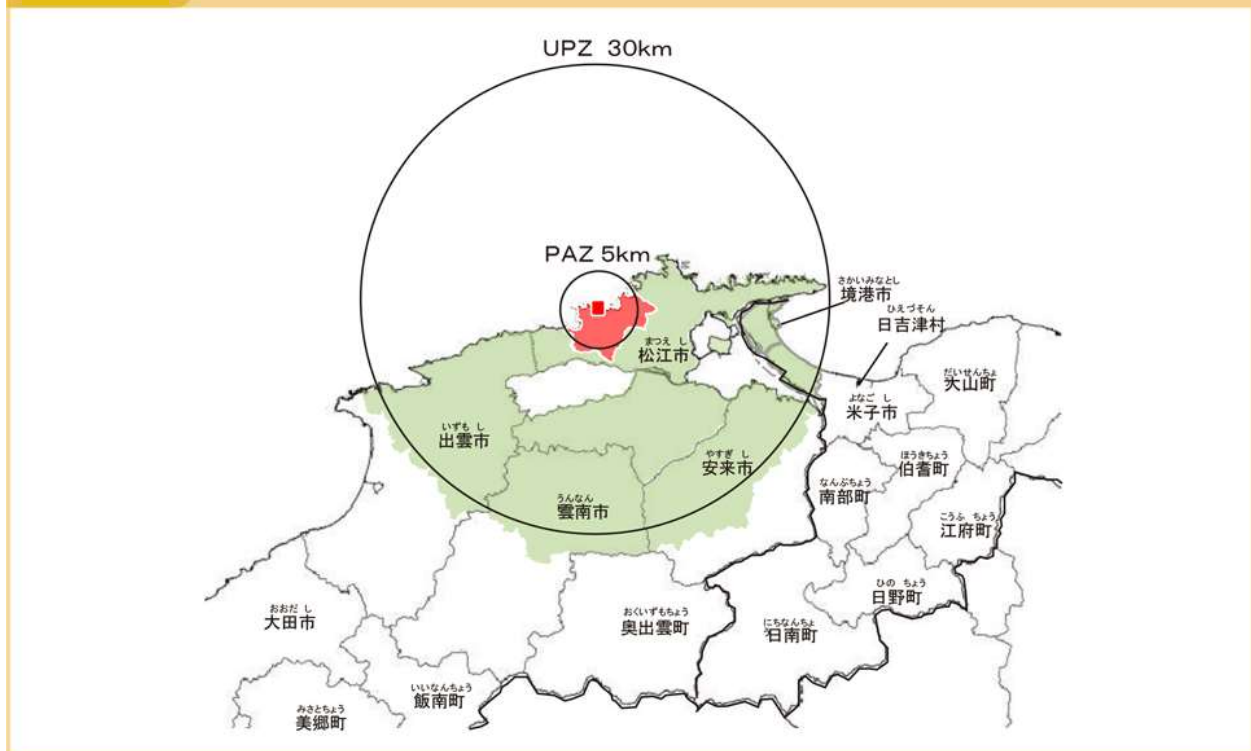
#### (1) Positioning and Objectives

The Comprehensive Nuclear Emergency Response Exercise is a joint exercise involving the national government, local governments and nuclear operators, in accordance with the Act on Special Measures Concerning Nuclear Emergency Preparedness. Based on the scenario of a nuclear emergency, it aims to verify systems for responding to such an emergency. The 2019 Comprehensive Nuclear Emergency Response Exercise was held at the Chugoku Electric Power Co., Inc. Shimane Nuclear Power Station with the objectives as listed below.

(Reference: [https://www8.cao.go.jp/genshiryoku\\_bousai/kunren/r1sg.html](https://www8.cao.go.jp/genshiryoku_bousai/kunren/r1sg.html))

- To confirm the effectiveness of the disaster preparedness systems of the national government, local governments and nuclear operators and the cooperative frameworks of related organizations
- To confirm national and local systems and procedures specified in manuals for responding to a nuclear Emergency
- To review an evacuation plan to develop “Emergency responses in Shimane Region” (Fig. 4-1-1)
- To identify lessons from the outcomes of the exercise and study emergency responses
- To enhance the skills of key personnel involved in nuclear emergency response measures and promote public understanding of nuclear emergency preparedness

**Fig. 4-1-1 Shimane Region Priority Zones for Nuclear Emergency Response**



\*PAZ: Precautionary Action Zone

\*UPZ: Urgent Protective Action Planning Zone

Source: Cabinet Office

## **(2) Dates and Subject Power Plants and Dates**

The exercise was held from November 8 to 10, 2019 at Shimane Nuclear Power Station.

## **(3) Participants, etc.**

(Number of participating organizations: 208; number of participants, including local citizens: approximately 7,780)

- Governmental organizations: Cabinet Secretariat, Cabinet Office, NRA and other related ministries and agencies
- Local governments: Shimane Prefecture, Tottori Prefecture, Matsue City, Izumo City, Yasugi City, Unnan City, Yonago City, Sakaiminato City and related prefectures, cities, towns and villages
- Nuclear operator: the Chugoku Electric Power Co., Inc.
- Related organizations: National Institutes for Quantum and Radiological Science and Technology, and Japan Atomic Energy Agency etc.

## **(4) Accident Scenario**

At Unit 2 of the Shimane Nuclear Power Station, the emergency core cooling system injects water to a nuclear power reactor after the external power source is shut down following an earthquake centered on the eastern Shimane Prefecture. However, water injection to all nuclear reactors of the system becomes impossible due to failures of the emergency core cooling system (ECCS), etc., leading to the state of General Emergency.

## **(5) Content of Exercise**

The exercise involved decision-making and operational drills relating to the evacuation of residents, tailored to the escalation of the situation in a complex disaster scenario, which involved a natural disaster and a nuclear emergency.

## **4-2 Overview of Performance**

### **(1) Exercise in Rapid Establishment of an Initial Response System**

The national government, local governments and nuclear operator mobilized key personnel and understand the current status, use the video conference system, etc. to set up each initial response system and tried to share inter-agency information. In addition, the State Minister for Nuclear Disaster Management, Cabinet Office, national officials and experts were dispatched to Off-site Centers, rapid response centers at nuclear facilities (Head Office of Chugoku Electric Power Co., Inc.), etc., by the government agencies related to emergency transportation and private transport aircraft.



Key personnel gather information  
(Shimane Off-site Center)

## **(2) Exercise in Making Decisions Concerning the Evacuation Policies, etc. Based on Collaboration between National and Local Bodies**

Emergency response systems were established at the Prime Minister's Official Residence, the NRA's Emergency Response Center (ERC), Off-site Centers, Shimane Prefectural Government, Tottori Prefectural Government, etc. Assuming the occurrence of a complex disaster involving a combination of a natural and nuclear disaster, a joint meeting was held between the two headquarters on natural disasters and nuclear disasters at the center, and information sharing and decision-making, instructions and coordination, including local organizations, were carried out in an integrated manner. At the same time, the NPA drafted plans and decided how to implement protective measures according to the circumstances and instructed the local governments covered by the decision.



Training at the Nuclear Emergency Response Headquarters (Prime Minister's Office) participated in by Mr. Abe, Prime Minister and relevant ministers

## **(3) Field training exercise on inter-prefectural evacuation, indoor evacuation, etc.**

(i) Following the site area emergency and general emergency, with supports from private transportation companies, etc., residents in the Precautionary Action Zone (PAZ) were evacuated within the prefecture. In addition, indoor evacuation was conducted for residents in the Urgent Protective Action Planning Zone (UPZ) to promote the understanding concerning the meaning of such evacuation.

(ii) Emergency monitoring was conducted based on the Emergency Monitoring Implementation Plan.

(iii) Assuming a radioactive material release, based on the operational intervention level standards, after certain standards were exceeded, the urgent distribution of stable iodine agents, temporary relocation outside

the prefecture and inspection of evacuation and relocation areas, etc. were conducted for residents in some parts of the UPZ.



Evacuation exercise for persons who need special assistance (Matsue city, Shimane Prefecture)



Residents' Seminar (Sakaiminato City, Tottori Prefecture)

#### 4-3 Post-exercise Initiatives

Following the 2019 Comprehensive Nuclear Emergency Response Exercise, the Cabinet Office identified areas for improvement based on views expressed by experts and responses to a questionnaire distributed to local citizens who participated in the drill. These are summarized in the Report on the Findings from the 2019 Comprehensive Nuclear Emergency Response Exercise in March 2020.

(Reference: [https://www8.cao.go.jp/genshiryoku\\_bousai/kunren/r1sg.html](https://www8.cao.go.jp/genshiryoku_bousai/kunren/r1sg.html))

Based on the lessons learned from this exercise, the government will strive to continuously improve the nuclear emergency preparedness system, etc., by enhancing the contents of future exercises and improving various plans and manuals, etc. The government will also utilize lessons in deliberations aimed at summarizing the "Emergency responses in Shimane Region" at the Local Nuclear Disaster Management Councils and others.