Section 4 FY 2021 Nuclear Energy Disaster Prevention Drill

4-1 Implementation Overview

(1) Definition and Purpose

The purpose of the Nuclear Energy Disaster Prevention Drill is to evaluate the response system in the event of a nuclear disaster. Based on the Act on Special Measures Concerning Nuclear Emergency Preparedness, this is a joint exercise conducted by the national government, local governments, and nuclear operators to prepare for a nuclear emergency. In FY 2021, the Nuclear Energy Disaster Prevention Drill was conducted at the Onagawa Nuclear Power Station of Tohoku Electric Power Company for the following purposes.

(Reference: https://www8.cao.go.jp/genshiryoku_bousai/kunren/kunren.html)

· To confirm the effectiveness of the disaster prevention systems of the national government, local governments, and nuclear operators, and the cooperative systems of related organizations.

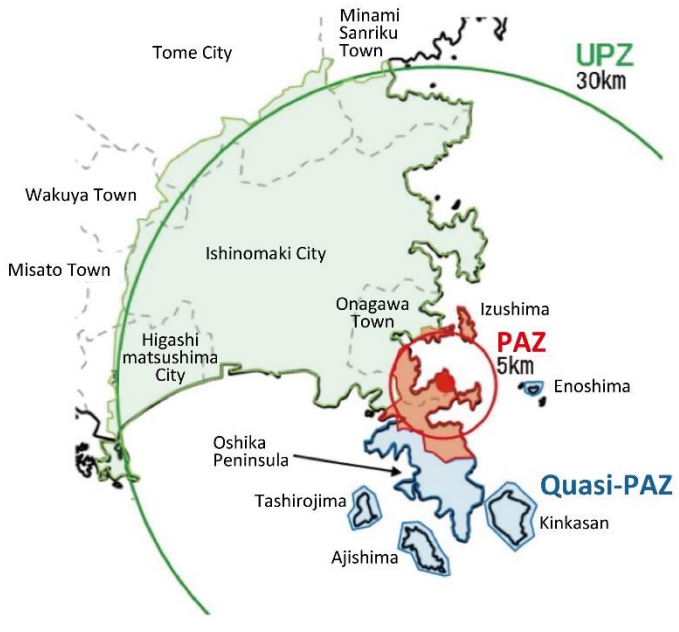
· To confirm the central and local systems and the procedures stipulated in the manuals for nuclear emergencies.

· To verify the evacuation plan specified in the "Emergency Response in the Onagawa Region " (FIG. 4-1-1).

· To identify lessons learned based on the results of the exercise, and to consider emergency response measures.

· To develop the skills of personnel involved in Nuclear Emergency Preparedness Measures, and to promote public understanding of nuclear disaster prevention.

FIG. 4-1-1 Priority Zones for Nuclear Disaster Risk Management in Onagawa Region



*PAZ (Precautionary Action Zone)
*UPZ (Urgent Protective Action Planning Zone)
*Quasi-PAZ: Areas in the UPZ where evacuation and other protective measures are to be prepared pursuant to PAZ

Source: Cabinet Office data

(2) Implementation Period and Subjected Power Plant

Exercises were conducted at the Onagawa Nuclear Power Station from February 10 to 12, 2022.

(3) Participating Organizations

(Number of participating organizations: 130, Number of participants: approx. 2,700)

· Government agencies: Cabinet Secretariat, the Cabinet Office, Nuclear Regulation Authority, and other relevant ministries and agencies

·Local governments: Miyagi Prefecture, Onagawa Town, Ishinomaki City, Tome City, Higashimatsushima City, Wakuya Town, Misato Town, Minamisanriku Town, and other related municipalities

· Operator: Tohoku Electric Power Company

· Related organizations: National Institutes for Quantum Science and Technology, Japan Atomic Energy Agency, etc.

(4) Assumed Accident Scenario

An earthquake and tsunami with an epicenter off the coast of Miyagi Prefecture occur. As a result, Onagawa Nuclear Power Station Unit 2, which is in operation, will undergo emergency shutdown. In addition, a series of equipment failures will cause loss of residual heat removal and reactor water injection functions, leading to a facility site emergency and an overall emergency situation.

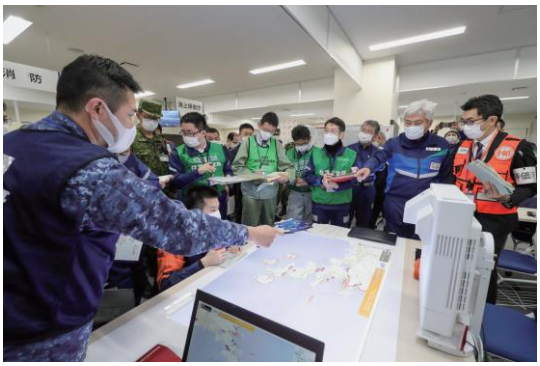
(5) Drill Details

Based on the objectives of the drill, the 3 items listed below were the main focus, which ranged from initial response drills to actual drills in response to a full-scale emergency situation, depending on the situational changes.

4-2 Overview of Drill Results

(1) Establishment of a Prompt Initial Response System

The national government, local governments, and nuclear operators gathered personnel and ascertained the current situation in order to establish their respective initial response systems, and shared information with each other using videoconferencing systems and other means. In addition, the State Minister of the Cabinet Office (in charge of nuclear emergency preparedness), government officials, and experts were dispatched to the emergency preparedness base facility (Onagawa Off-site Center in Miyagi Prefecture) and rapid response centers at nuclear facilities (the head office of Tohoku Electric Power Company)



Collecting information by the gathered personnel

(Onagawa Off-site Center)

(2) Decision-making on Protective Action Implementation Policies through Coordination between the Central and Local organizations

An emergency response system was established at the Prime Minister's official residence, the NRA's Emergency Response Center, the off-site center, the Miyagi Prefectural Office, and other locations. Assuming the occurrence of a combined natural and nuclear disaster, a joint meeting of both headquarters for natural and nuclear disasters was held at the government. Along with this, information sharing, decision making, instructions and coordination, including local organizations, were carried out centrally. And they also made a decision on the implementation of protective action, and gave instructions concerning the content of the decision to the targeted local governments.

Exercise at the Joint Meeting of the Nuclear Emergency Response Headquarters and Major Disaster Management Headquarters with the participation of Prime Minister Kishida and related cabinet ministers
(Prime Minister's Office)

(3) Resident Evacuation and Indoor Evacuation

1. In response to a facility site emergency and a full-scale emergency, residents were evacuated within the Precautionary Action Zone (PAZ) and a zone for preparing protective measures such as evacuation similar to a PAZ (quasi-PAZ) with the assistance of private transportation and other organizations. Also, residents in the Urgent Protection action planning zone (UPZ) were evacuated indoors, and efforts were made to promote understanding of the significance of the indoor evacuation and other related matters.

2. Emergency monitoring was conducted in accordance with the emergency monitoring implementation plan.

3. Assuming that radioactive materials were released and the OIL2 level was exceeded based on the Operational Intervention Level (OIL), emergency distribution of stabilized iodine agents, temporary relocation, and contamination screening were conducted for residents in some areas within the UPZ.

*In order to prevent the spread of COVID-19 infection, local government officials played the role of residents during the evacuation exercise.

Temporary relocation and contamination screening

4-3 Efforts after the Drill

Based on the lessons learned from this drill, we will strive to continuously improve the nuclear disaster prevention system by enhancing the content of future drills and improving various plans and manuals. This will also be utilized to improve the "Onagawa Region Emergency Response" in the Regional Nuclear Disaster Management Council.