

Investigation of Measures for Reinforcing Safety at the Ohma Nuclear Power Plant and Future Plans

Electric Power Development Co., Ltd. (hereinafter, “J-POWER”) hereby announces the status of its examination of measures for reinforcing safety, the implementation of quality maintenance measures, and future plans for Ohma Nuclear Power Plant.

- Examination of Measures for Reinforcing Safety

J-POWER has undertaken an investigation of various measures for reinforcing safety at the Ohma Nuclear Power Plant. These measures include a range of anti-tsunami measures, measures to ensure emergency power sources and ultimate heat removal functions, and responses for severe accidents.

J-POWER has recently compiled a report on the status of these measures as well as other measures added since its previous report (see attachment).

While consistently and properly reflecting the necessary measures, J-POWER will continue to ensure the creation of a safe power plant.

- Measures for Quality Maintenance

J-POWER has already implemented a range of quality maintenance measures at Ohma Nuclear Power Plant but in view of the considerable period that has lapsed since the suspension of construction at the plant, J-POWER intends to implement further measures.

These measures include the installation of equipment containing the steel sheeting inside the nuclear reactor containment vessel that is outdoors during construction into a favorable interior environment, the concrete placement for maintaining the quality of reinforced steel and steel frames in the building and other structures, and quality maintenance measures for equipment and piping inside the building.

- Future Plans

With the understanding of the local communities, J-POWER will make a decision regarding the resumption of construction at the Ohma Nuclear Power Plant in light of the Cabinet’s decision on Japan’s Basic Energy Plan.

Today J-POWER explained the above matters to the Special Committee for Ohma Nuclear Power Plant in the local assemblies of the towns of Ohma, Kazamaura and Sai.

Attachment: Measures for Reinforcing Safety at the Ohma Nuclear Power Plant (Summary)

Measures for Reinforcing Safety at the Ohma Nuclear Power Plant (Summary)

I Tsunami Assessment and Plan for Emergency Power Supply

(1) Tsunami Assessment

Based on historical records and hypothetical tsunami generating mechanisms, it is estimated that the maximum height of a potential tsunami is +4.4m, and the facilities necessary for cooling the nuclear reactor are to be installed in major structures (reactor building, turbine building, etc.) built on a compound site with an elevation of +12m.

(2) Emergency Power Supply

Three emergency diesel engine generators will be installed inside the reactor building at a site with an elevation of +12m. In addition, there are two 500kV lines and a 66kV line capable of supplying electric power to emergency facilities.

II Measures to Reinforce Safety

In addition to the above plan, the following measures will be implemented during construction.

(1) Anti-tsunami Measures

The following countermeasures will be implemented to reduce the shock of potential tsunami, prevent the flooding into major structures, and protect equipment in buildings from seawater.

- Installation of seawall around major structures
- Creation of waterproof structures for doors in exterior walls
- Improvement in the watertightness of rooms housing important equipment for safety purposes
- Height extension of oil fences around the oil tanks

(2) Ensuring Emergency Power Supplies

The following countermeasures will be implemented in an emergency if power supply from external power sources is cut off and emergency diesel engine generators cannot be utilized.

- Installation of emergency power generators and fuel tanks on elevated ground that will not be affected by impact of tsunami
- Proper installation of power source cables from the emergency power generators
- Deployment of power supply vehicles
- Increase in capacity of storage batteries
- Additional installation of power panel on upper floor

(3) Ensuring Ultimate Heat Removal Function in Emergencies

The following countermeasures will be implemented in an emergency to ensure capabilities for cooling the reactor and spent fuel storage pool.

- Ensure alternative water source (reinforcement of water tanks, new installation of water storage tanks, etc.)
- Reinforcement of alternative water infusion equipment
- Deployment of portable power pumps and fire engines
- Deployment of alternative seawater pumps
- Preparation of spare parts for seawater pump electric motors, etc.

(4) Measures related to Responses to Managing Severe Accidents

The following measures will be implemented for responding rapidly and managing situations even in the event of a severe accident.

- Installation of filtered containment venting system
- Reinforcement of cooling of containment vessel
- Installation of nuclear reactor building hydrogen venting units and interior hydrogen detection units
- Ensure operating environment for central control room
- Installation of major seismic isolation building
- Installation of materials and equipment warehouse
- Reinforcement of communications systems
- Provision of supplies of such materials and equipment as protective clothing designed to cope with high level of radiation and creation of a radiation management system
- Deployment of heavy equipment for debris removal

Furthermore, in addition to promoting initiatives aimed at disaster prevention based on the reinforcement of cooperation among business operators in Aomori Prefecture, we will actively introduce more advanced safety technology and appropriately reflect necessary countermeasures properly, which will lead to the creation of a safe power plant.

