

## TEPCO details tsunami damage

Waves that hit Fukushima plant exceeded firm's worst-case projections

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Major facilities at the Fukushima No. 1 nuclear power plant, including reactor and turbine buildings, were flooded to a depth of four meters to five meters during the March 11 tsunami, according to Tokyo Electric Power Co.

The tsunami inundated facilities including the Nos. 1 to 4 reactors and turbine buildings and rose as high as about 15 meters above sea level, according to TEPCO.

TEPCO estimated the coverage of the waves' impact and their height based on physical evidence such as discoloration of walls.

According to TEPCO, facilities at the plant were struck by several tsunami caused by the Great East Japan Earthquake. The first wave arrived at the plant at 3:27 p.m.—41 minutes after the earthquake.

One wave passed over a breakwater that was 5.7 meters above the sea surface, wiping out seawater pumps near water intake outlets.

TEPCO's disaster-scenario projections had not allowed for the possibility of a wave rising high enough to breach the breakwater.

Later, tsunami as high as 10 meters above the sea surface struck turbine buildings, completely submerging the facilities' doors.

The force of the waves sent seawater around the turbine buildings to the far side of the reactor buildings.

Reactors No. 5 and No. 6, which are located 13 meters above sea level, were flooded by water one meter to two meters deep.

The Fukushima No. 2 nuclear power plant was hit by tsunami from 6.6 meters to 14 meters high, which again exceeded TEPCO's predictions.

The No. 2 plant's main facilities did not suffer serious flood damage, however, as they occupy ground higher than the Fukushima No. 1 plant, according to TEPCO.

Seawater pumps at the No. 2 plant were damaged, but TEPCO managed to lower temperatures in the plant's Nos. 1 to 4 reactors to under 100 C—thus enabling shutdown—by the morning of March 15 by replacing or repairing the pumps.

On Saturday, TEPCO said it had almost completed the release of water containing relatively low-level radioactive materials into the sea from the No. 1 plant's central waste treatment facility.

TEPCO is now working to set up a water transfer hose to clear more contaminated water that has flooded the basements of the turbine buildings of the No. 2 reactor and other facilities.

**P.S.**

\* The Yomiuri Shimbun, Apr. 11, 2011:

<http://www.yomiuri.co.jp/dy/national/T110410003477.htm>