TEPCO releases contaminated water tank construction schedule

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TEPCO, operator of the damaged Fukushima Daiichi nuclear power plant, has announced it plans to start a water treatment system for the flooded units 1-4 by 15 June. In addition, a desalination plant will also start up by then.

Schematic of height differential of Fukushima Daiichi reactor buildings demonstrates the extent of the water flooding problem; connections between units 1&2, (and also units 3&4), allow water heights to equalise in different buildings.

Pumping out of a trench near unit 2 ceased on 26 May after 9570 tons of water was removed. Pumping out of the unit 3 turbine building ceased on 25 May after 3660 tons of water was removed. In both cases, pumping continued until the receptacles in the central waste treatment facility (the main process building and the miscellaneous solid waste volume reduction treatment building) were full.

A new 10,000 ton-capacity tank for high-level radioactive water will be ready by mid-August, according to TEPCO. And a total of 13,000 tons of low-to-medium-level radioactive water tanks are currently available; an additional 20,000 tons of capacity will be added every month from the end of June.

Meanwhile, pumping out the unit 6 turbine basement resumed on 2 June. About 4100 tons of water had been pumped out by 30 May.

Construction has begun on many water tanks on site. Construction of tanks for water with high-level radiation began in June (total capacity: 10,000 tons). The first group of tanks for water with low and medium-level radiation began in April and is expected to finish in June (total capacity: 19,200 tons). A second group (total capacity: 140,000 tons) is expected to begin construction in June.

In other news, on 3-4 June a new temporary reactor pressure indicator was due to be installed. According to TEPCO, the unit 1 pressure gauge is malfunctioning. Channel A readings fell below the scale on 12 May, although channel B data continues to be received, according to a record of the parameters from the Japan Nuclear Technology Institute.
(JANTI). The new indicator will be installed on the reference leg side of the water level (Fuel Range A system) below the active core. Its readings will be reduced by 0.18 MPa to compensate for the hydraulic head from the 20m difference in height to the existing pressure gauge, and is expected to have an accuracy of plus/minus 10kPa. The new gauge will be installed in a temporary rack will be installed and filled with water. A camera will photograph the indicators and display their readings in the seismic control building. Once the internal environments of units 2 and 3 are improved, they will also be fitted with additional pressure gauges.

In other news, two male TEPCO employees were found to have high concentrations of iodine-131 in their thyroid gland, levels that are likely to be greater than the new 250 mSv emergency limit. Excluding these two, as of 3 June, 27 TEPCO employees and three contractors had external radiation exposure of between 100 mSv-250 mSv. No TEPCO employees nor contractors have had exposures over 250 mSv, until now.