Japan Unit-4 Pool’s Heat Exceeded Three-Times Normal, IAEA Says

By Jonathan Tirone - Mar 18, 2011 4:40 AM CT

Temperatures in a cooling pool at the crippled Japanese nuclear plant have exceeded three times normal values, causing radiation to leak directly into the atmosphere and complicating efforts to stop three reactors from melting down, the UN Atomic Energy Agency reported.

The pond at reactor No. 4 covering uranium fuel rods at the Fukushima Dai-Ichi nuclear plant heated to 84 degrees Celsius (183 Fahrenheit) the last time data was available on March 13, the IAEA said today on its website. Temperatures normally should be kept below 25 degrees Celsius, according to the agency.

Authorities have said the cooling pool at the No. 4 reactor, hit by fire and explosion, is perhaps the most critical element of the atomic disaster.

"Unit-4 remains a major safety concern," the Vienna-based agency said late yesterday in a statement. There was no information available on the level of water in the spent fuel pond, the agency said.

Japan’s Nuclear and Industrial Safety Agency said yesterday there is a possibility there’s no water at the cooling pool. If exposed to air, the fuel rods could decay, catch fire and spew radioactive materials into the air.

U.S. Nuclear Regulatory Commission Chairman Gregory Jaczko said in Congressional testimony March 16 that unit had no water in its cooling pool, which sits in a side chamber above the reactor’s core. A hydrogen explosion inside the core’s containment chamber may have drained the pool, which is supposed to keep radiation in check by covering the rods with 15 meters of water.

"We believe that radiation levels are extremely high, which could possibly impact the ability to take corrective measures," Jaczko said.

Other Ponds Hot

Temperatures in fuel ponds at units No. 5 and 6, also loaded with uranium fuel assemblies, exceeded two-times normal values, the IAEA said. Unit 5’s temperature rose to 65.5 degrees
Celsius from 64.2 degrees Celsius yesterday afternoon. Unit 6’s temperature fell 0.5 degree to 62 Celsius.

Accidents may cause water in pools to leak, evaporate or boil away. Cooling and water circulation systems inside pool No. 4 weren’t working, the IAEA said.

To contact the reporter on this story: Jonathan Tirone in Vienna at jtirone@bloomberg.net

To contact the editor responsible for this story: Reed Landberg at landberg@bloomberg.net
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