

Fukushima Open Thread Fri 4/11

Posted by JoulesBurn on April 11, 2011 - 2:54pm

Yet another large aftershock <u>shook the region</u> around the Fukushima Daiichi nuclear power plant, causing a brief evacuation of workers and an interruption to the electricity flow to external pumps used to provide fresh water to cool the reactor pressure vessels and spent fuel ponds. The injection of nitrogen into the No. 1 primary containment vessel, aimed at reducing the risk of additional hydrogen explosions, has also resumed. However, the pressure <u>is rising slower than expected</u>, suggesting a possible leak.

The International Atomic Energy Agency status <u>summary for April 11</u> shows no substantial change over the past few days:

Unit	1	2	3	4
Power (MWe /MWth)	460/1380	784/2381	784/2381	784/2381
Type of Reactor	BWR-3	BWR-4	BWR-4	BWR-4
Status at time of EQ	In service – auto shutdown	In service – auto shutdown	In service – auto shutdown	Outage
Core and fuel integrity	Damaged	Severe damage	Damaged	No fuel in the Reactor
RPV & RCS integrity	RPV temperature high but stable	RPV temperature stable	RPV temperature stuble	Not applicable due to outage plant status
Containment integrity	No information	Damage suspected	Damage suspected	
AC Power	AC power available - power to instrumentation - Lighting to Central Control Room	AC power available – power to instrumentation – Lighting to Central Control Room	AC power available – power to instrumentation – Lighting to Central Control Room	AC power available – power to instrumentation – Lighting to Central Control Room
Building	Severe damage	Slight damage	Severe damage	Severe damage
Water level of RPV	Around bull of Puel is uncovered	Around half of Fuel is uncovered	Around half of Fuel is unsevered	Not applicable due to outage plant status
Pressure of RPV	Increasing	Stable	Stable	
CV Pressure Drywell	Increasing	Stable	Stable	
Water injection to RPV	Injection of freshwater – via mobile electric pump with off-site power	Injection of freshwater – via mobile electric pump with off-site power	Injection of freshwater - via mobile electric pump with off-site power	
Water injection to CV	No information	No information	No information	
Spent Fuel Pool Status 4/11/2011 06:00 UTC	Fresh water spraying completed by concrete pump truck	Freshwater injection to the Fuel Pool Cooling Line	Freshwater injection via Fuel Pool Cooling Line and Periodic spraying	Fresh water injected by concrete pump truck

Note that while freshwater is being injected, it is not being cycled. Added water replaces that lost due to evaporation (which provides cooling) and leakage (unknown extent, but which could add to the volume of radioactive water flooding certain areas of the plant). Most of that salt added from the seawater used earlier is still there.

The Nuclear Safety Commission of Japan Monday <u>released an estimate</u> that the plant had may have been releasing up to 10,000 terabecquerels or radioactivity per hour at some point. Although it is now estimated to be releasing only 1 terabecquerel per hour, the cumulative burden in the nearby vicinity is still increasing, The government <u>forcing an expansion of the</u>

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