

## Anti-seismic reinforcement of the exhaust stacks (September 20)

Though the anti-seismic reinforcement of exhaust stacks\*1 which started from November 2010 had been suspended due to the Tohoku-Chihou-Taiheiyou-Oki Earthquake in 2011, the reinforcement work was restarted on October 31, 2011 (Previously announced on October 31, 2011). Considering that the exhaust stacks are critical for ensuring plant safety, the reinforcement was done as a part of restoration of the reactor cooling equipments necessary for maintaining the cold shut down condition for enhanced safety against aftershock and Tsunami. A seismic control coil damper\*2 was installed to mitigate the seismic impact on the steel tower supporting the exhaust stack, and the support point connecting the exhaust stack and the steel tower was partially detached. On September 20, 2012, the anti-seismic reinforcement of the exhaust stacks has been completed. (Removal of temporary equipments and cleaning will be continued until the end of January 2013.)

**\*1 Exhaust stack**

Facility to discharge the air which circulated through the building. The radioactive materials contained in the exhaust air are removed or reduced down to the level which has no negative impact on the surrounding environment in the process of going through several layers of filter. The radioactivity density of the exhaust air is measured and monitored at all times in order to ensure safety. At Fukushima Daini Nuclear Power Station, a total of 5 exhaust stacks (one for each unit and one for the Waste Treatment Building) are installed all in one area.



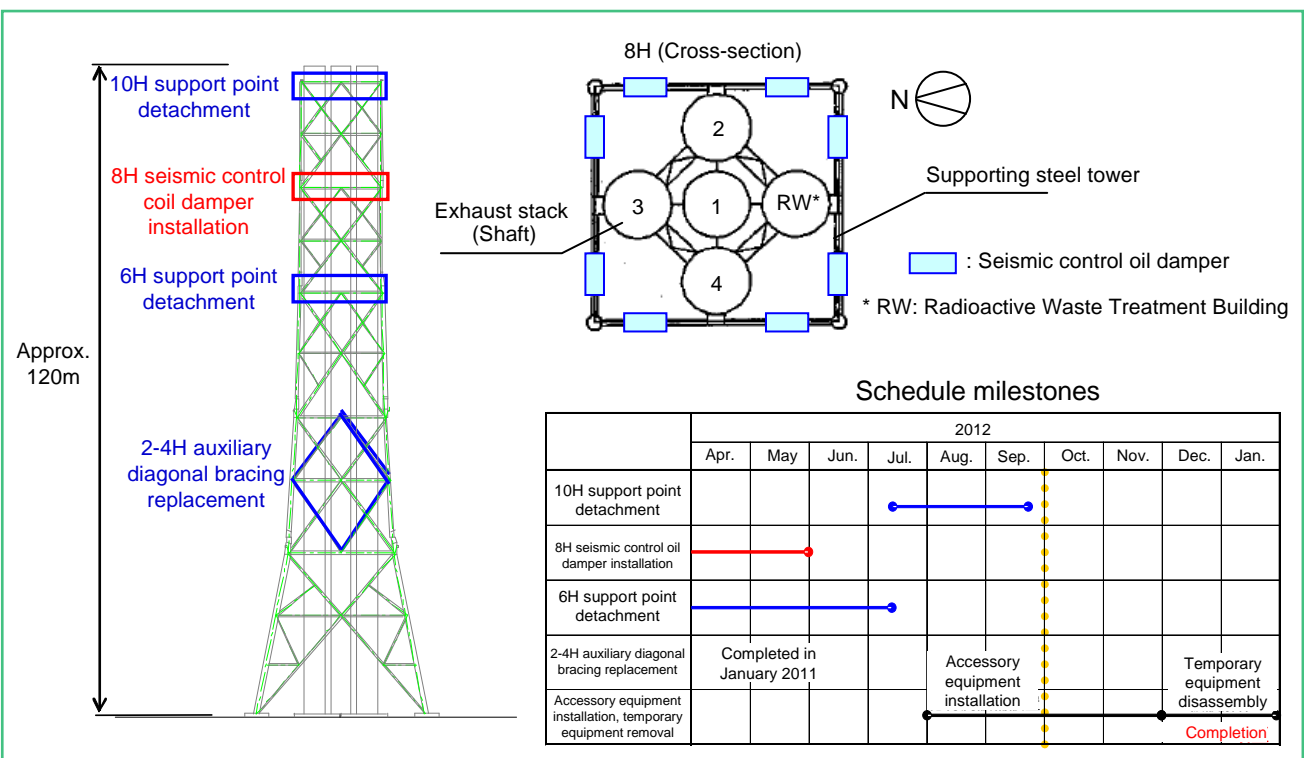
**\*2 Seismic control oil damper**

Device to enhance safety of building in the event of an earthquake by absorbing the vibration energy by the fluid resistance of the oil in the damper.

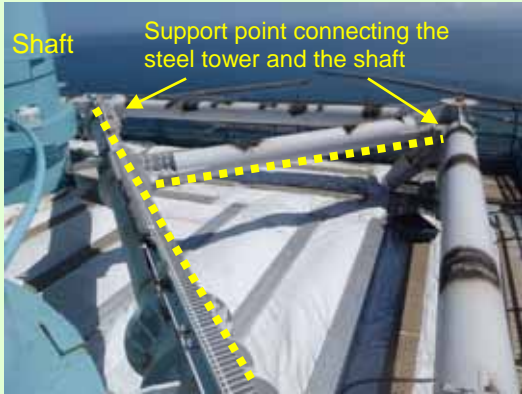


Length: Approx. 2.8m  
Weight: Approx. 1.3t

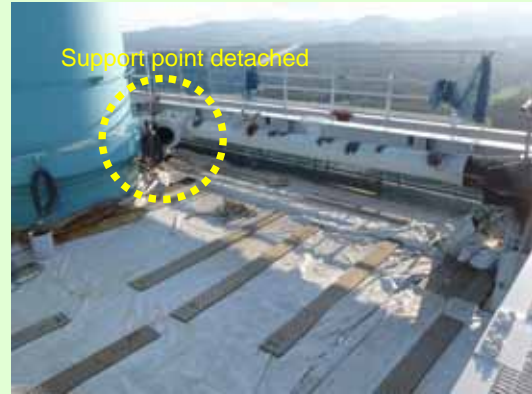
## Overview of anti-seismic reinforcement of exhaust stacks



## Support point detachment



Before the support point was detached  
(Photo taken on September 5, 2012)  
Detach the support point connecting the steel tower and the shaft



After the support point was detached  
(Photo taken on September 7, 2012)  
By detaching the support point, the vibration energy on the exhaust stack can be absorbed by the seismic control oil damper.

## Seismic control oil damper installation



Seismic control oil damper placed on the ground (before being lifted up)  
(Photo taken on April 20, 2012)



Seismic control oil damper being lifted up  
(Photo taken on April 20, 2012)



Seismic control oil damper installation  
(Photo taken on April 20, 2012)



Seismic control oil damper installation completed  
(Photo taken on April 20, 2012)