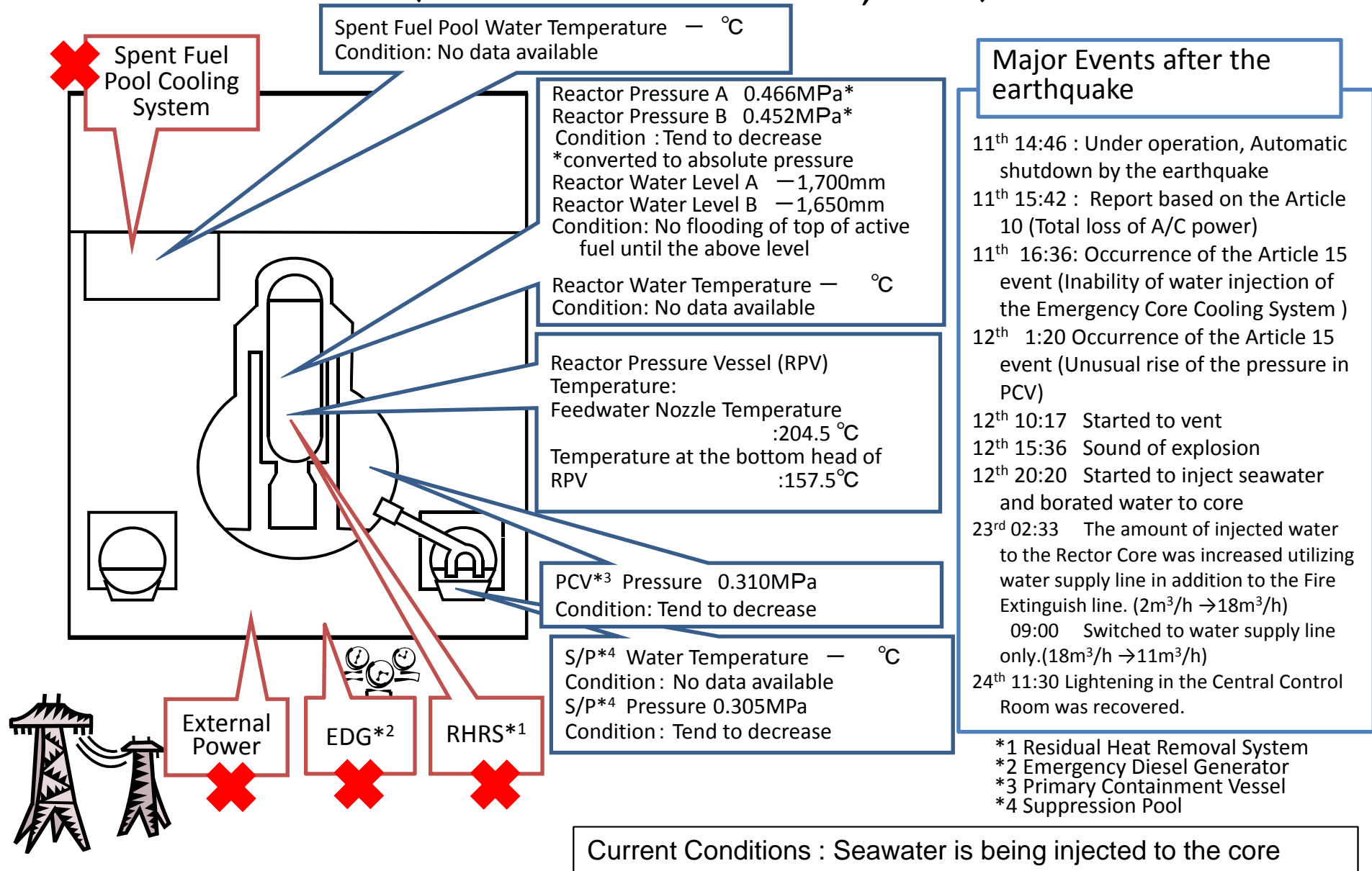
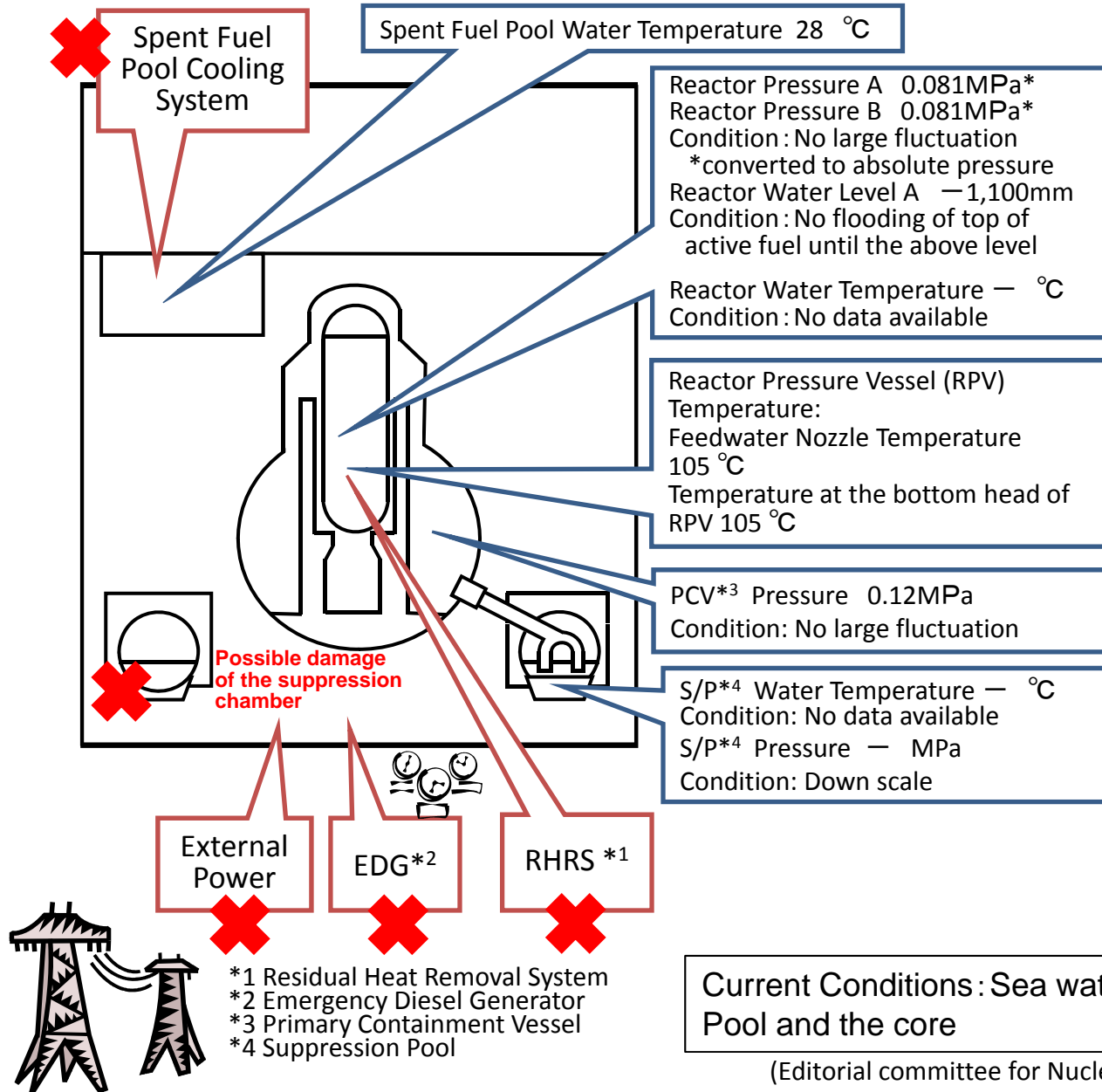


# Conditions of Fukushima Dai-ichi Nuclear Power Station **Unit 1** (As of 06:10 March 25th, 2011)



# Conditions of Fukushima Dai-ichi Nuclear Power Station **Unit 2** (As of 06:10 March 25th, 2011)



## Major Events after the earthquake

- 11<sup>th</sup> 14:46 Under operation, Automatic shutdown by the earthquake
- 11<sup>th</sup> 15:42 Report based on the Article 10 (Total loss of A/C power)
- 11<sup>th</sup> 16:36 Occurrence of the Article 15 event (Inability of water injection of the Emergency Core Cooling System)
- 13<sup>th</sup> 11:00 Started to vent
- 14<sup>th</sup> 13:25 Occurrence of the Article 15 event (Loss of reactor cooling functions)
- 14<sup>th</sup> 16:34 Started to inject water to the Reactor Core
- 14<sup>th</sup> 22:50 Occurrence of the Article 15 event (Unusual rise of the pressure in PCV)
- 15<sup>th</sup> 0:02 Started to vent
- 15<sup>th</sup> 6:10 Sound of explosion
- 15<sup>th</sup> around 6:20 Possible damage of the suppression chamber
- 20<sup>th</sup> 15:05~17:20 Approximately 40 ton seawater injection to the Spent Fuel Pool (SFP) via Fuel Pool Cooling System (FPC)
- 20<sup>th</sup> 15:46 Power Center received electricity.
- 21<sup>st</sup> 18:22 White smoke generated. The smoke died down and almost invisible at 07:11 March 22<sup>nd</sup>.
- 22<sup>nd</sup> 16:07 Injection of around 18 tons of seawater to the Spent Fuel Pool

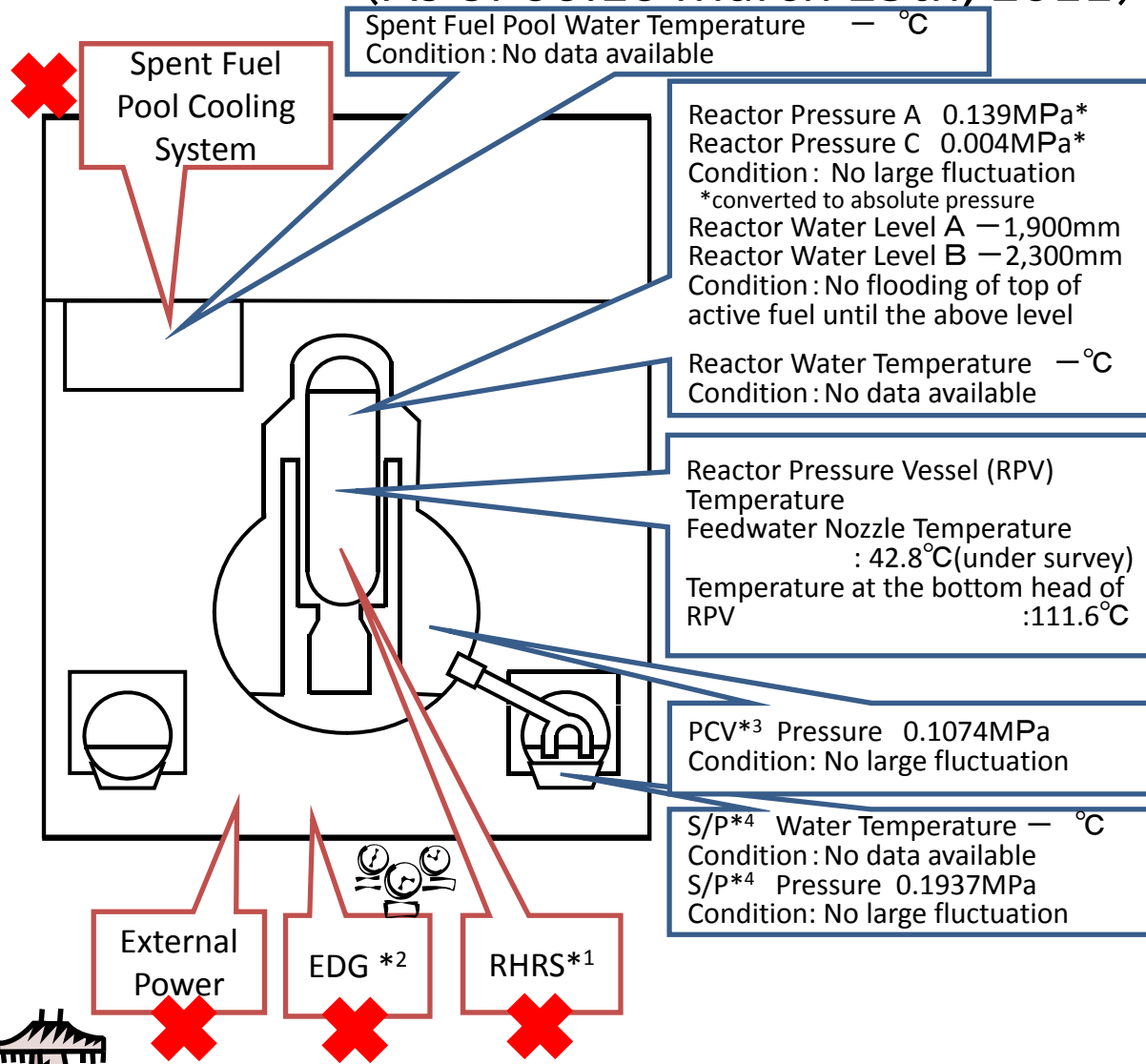
**Current Conditions:** Sea water is being injected to Spent Fuel Pool and the core

# Conditions of Fukushima Dai-ichi Nuclear Power Station Unit 3

(As of 06:10 March 25th, 2011)

## Major Events after the earthquake

- 11<sup>th</sup> 14:46 Under operation, Automatic shutdown by the earthquake
- 11<sup>th</sup> 5:42 Report based on the Article 10 (Total loss of A/C power)
- 12<sup>th</sup> 20:41 Started to vent
- 13<sup>th</sup> 5:10 Occurrence of the Article 15 event (Inability of water injection of the Emergency Core Cooling System)
- 13<sup>th</sup> 9:20 Started to vent
- 13<sup>th</sup> 13:12 Started to inject seawater and borated water to core
- 14<sup>th</sup> 5:20 Started to vent
- 14<sup>th</sup> 7:44 Occurrence of the Article 15 event (Unusual rise of the pressure in PCV)
- 14<sup>th</sup> 11:01 Sound of explosion
- 16<sup>th</sup> around 8:30 White smoke generated.
- 17<sup>th</sup> 9:48~10:01 Water discharge by the helicopters of Self-Defense Force (4 times)  
19:05~20:07 Water spray from the ground by High pressure water-cannon trucks (Police: once, Self-Defense Force: 5 times)
- 18<sup>th</sup> before 14:00~14:38 Water spray from the ground by 6 fire engines of Self-Defense Force  
~14:45 Water spray from the ground by a fire engine of the US Military
- 19<sup>th</sup> 0:30 ~0:50 Water spray by Tokyo Fire Department
- 19<sup>th</sup> 14:05 ~ 20<sup>th</sup> 3:40 Water spray by Tokyo Fire Department
- 20<sup>th</sup> 11:00 Pressure of PCV rose(320kPa).Afterward fell.
- 20<sup>th</sup> 21:30 ~ 21<sup>st</sup> 3:58 Water spray by Tokyo Fire Department
- 21<sup>st</sup> about 15:55 Grayish smoke generated and was confirmed to be died down at 17:55.
- 22<sup>nd</sup> 15:10 ~ 15:59 Water spray by Tokyo Fire Department
- 22<sup>nd</sup> 22:43 Lightening in the Central Control Room was recovered.
- 23<sup>rd</sup> 11:03 ~13:20 Injection of about 35ton of sea water to the Spent Fuel Pool (SFP) via the Cooling and Purification Line (FPC)
- 23<sup>rd</sup> around 16:20 Black smoke generated and was confirmed to be died down at around 23:30 and 24<sup>th</sup> 4:50.
- 24<sup>th</sup> 5:35~16:05 Approximately 120 ton sea water injection to SFP via FPC



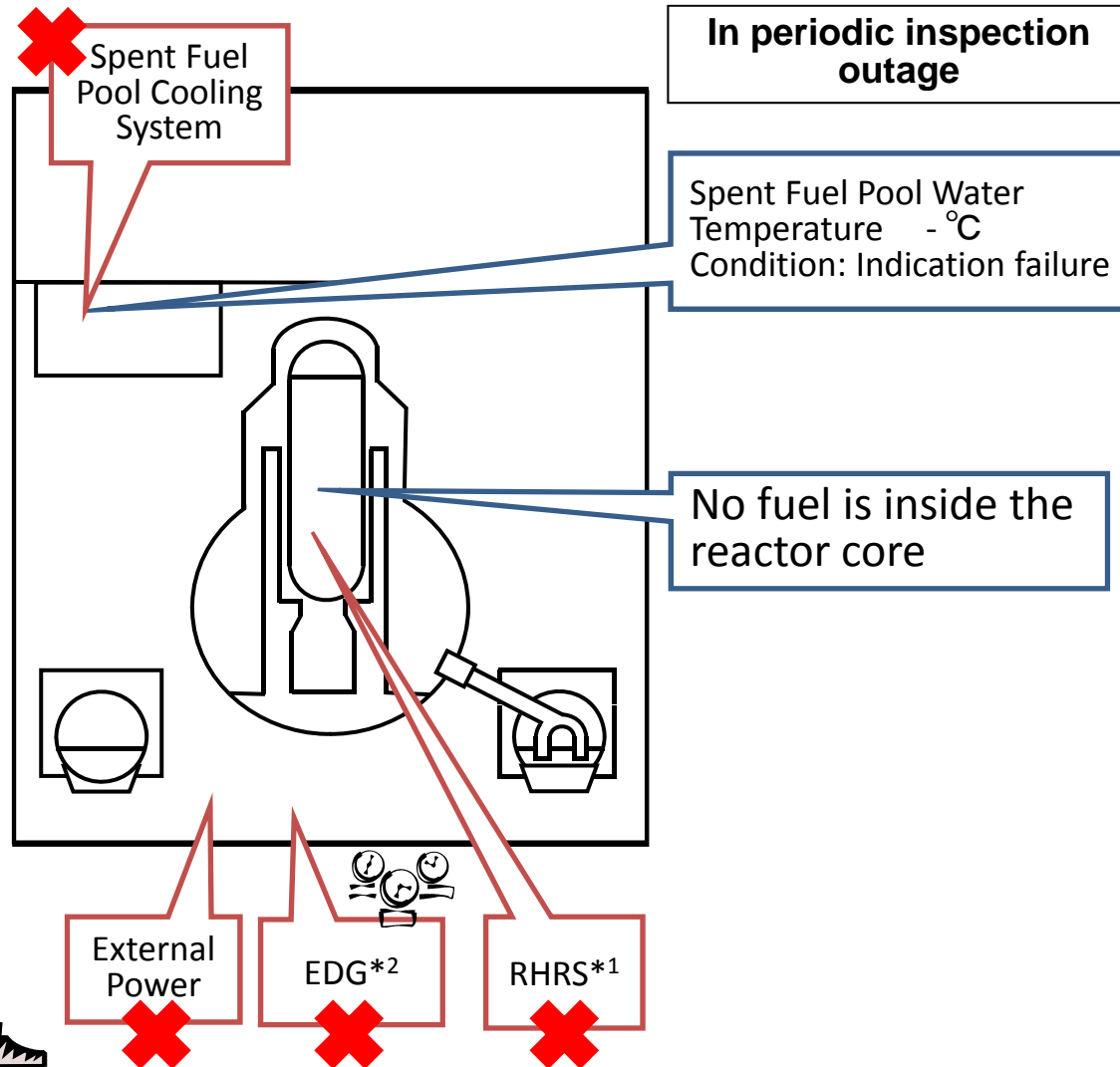
- \*1 Residual Heat Removal System
- \*2 Emergency Diesel Generator
- \*3 Primary Containment Vessel
- \*4 Suppression Pool

Current Conditions: Sea water is being injected to Spent Fuel Pool and the Reactor Core

# Conditions of Fukushima Dai-ichi Nuclear Power Station **Unit 4** (As of 06:10 March 25th, 2011)

## Major events after the earthquake

In periodic inspection outage when the earthquake occurred.  
 11th 15:42 Report based on the Article 10 (Total loss of A/C power)  
 14th 4:08 Water temperature in the Spent Fuel Pool, 84°C  
 15th 6:14 Partial damage of wall in the 4th floor confirmed  
 15th 9:38 Fire occurred in the 3rd floor. (12:25 extinguished)  
 16th 5:45 Fire occurred. TEPCO couldn't confirm any fire on the ground. (6:15)  
 20th 8:21~9:40 Water spray over the Spent Fuel Pool by Self-Defense Force  
 20th around 18:30~19:46 Water spray over the Spent Fuel Pool by Self-Defense Force  
 21st 6:37~8:41 Water spray over the Spent Fuel Pool by Self-Defense Force  
 21st about 15:00 Work for laying cable to Power Center was completed.  
 22nd 10:35 Power Center received electricity  
 22nd 17:17~20:32 Water spray by Concrete Pump Track  
 23rd 10:00~13:02 Water spray by Concrete Pump Track  
 24th 14:36~17:30 Water spray by Concrete Pump Track  
 25th 6:05 Started sea water injection to the Spent Fuel Pool (SFP) via the Fuel Pool Cooling (FPC) and Purification Line



In periodic inspection outage

Spent Fuel Pool Water Temperature - °C  
Condition: Indication failure

No fuel is inside the reactor core

External Power

EDG\*2

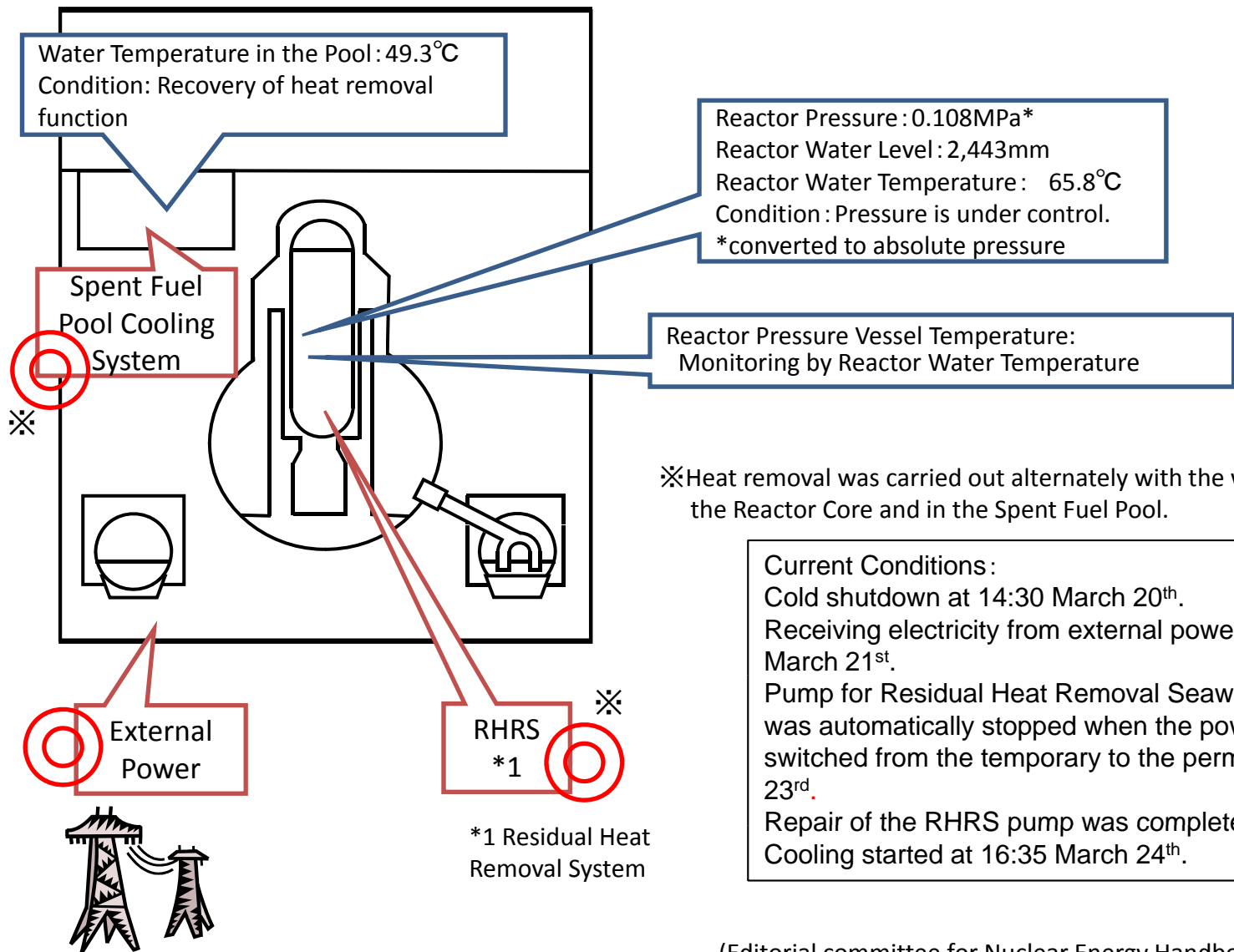
RHRS\*1

\*1 Residual Heat Removal System  
 \*2 Emergency Diesel Generator  
 \*3 Reactor Pressure Vessel

**Current Conditions: No fuel is in RPV\*3.  
 Started sea water injection to Spent Fuel Pool.**

# Conditions of Fukushima Dai-ichi Nuclear Power Station **Unit 5** (As of 06:10 March 25th, 2011)

**In periodic inspection outage**



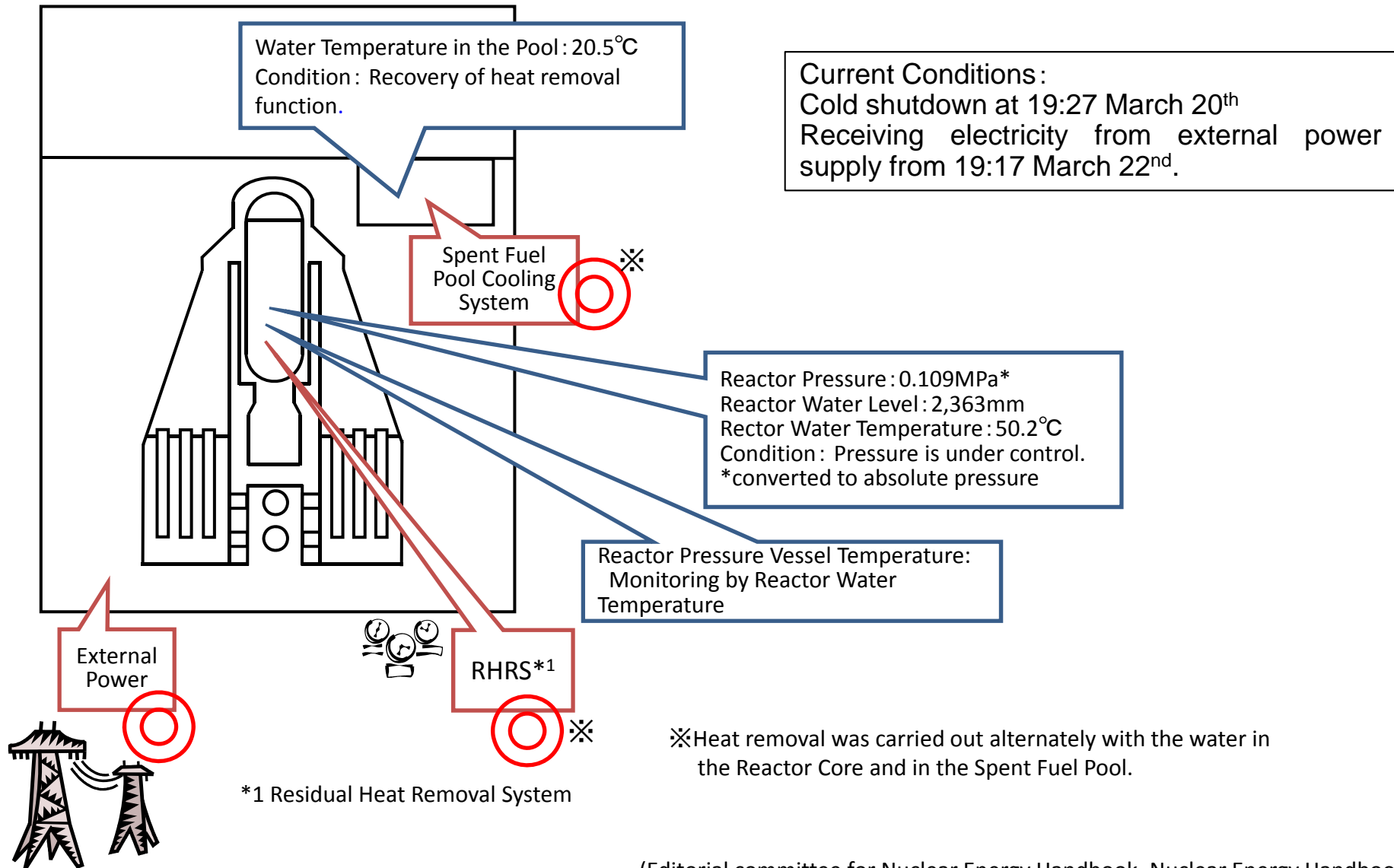
Current Conditions:  
Cold shutdown at 14:30 March 20<sup>th</sup>.  
Receiving electricity from external power supply from 11:36 March 21<sup>st</sup>.  
Pump for Residual Heat Removal Seawater System (RHRS) was automatically stopped when the power supply was switched from the temporary to the permanent at 17:24 March 23<sup>rd</sup>.  
Repair of the RHRS pump was completed at 16:14 March 24<sup>th</sup>.  
Cooling started at 16:35 March 24<sup>th</sup>.

(Editorial committee for Nuclear Energy Handbook, Nuclear Energy Handbook)

# Conditions of Fukushima Dai-ichi Nuclear Power Station **Unit 6**

(As of 06:10 March 25th, 2011)

**In periodic inspection outage**



**Current Conditions:**  
 Cold shutdown at 19:27 March 20<sup>th</sup>  
 Receiving electricity from external power supply from 19:17 March 22<sup>nd</sup>.