

# Fukushima Daiichi Nuclear Power Station Unit 2 and Unit 3

## Soundness Confirmation Survey for Reactor

### (Survey on Estimation of Conduction Distance for Neutron Detector)

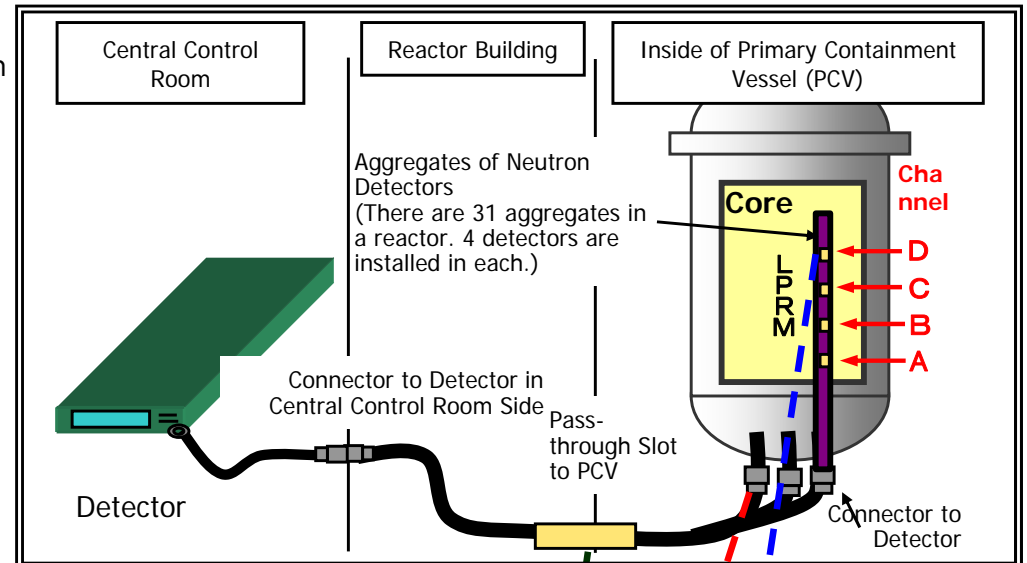
Overview of Survey on Estimation of Conduction Distance for Neutron Detector

<Objective> Conduction situation to neutron detectors can be confirmed by sending electric signals from a control panel which detects signals from neutron detectors (LPRM: Local Power Range Monitor) in a central control room. The signals enables to estimate soundness between LPRM and cables, and judge a possibility to estimate a situation of lower part or inside of Reactor Pressure Vessel (RPV).

<Function> It measures impedance among a central control room, cable and LPRM and estimated a distance to changing point of the impedance.

<Duration> 2011/10/6-10/7: Unit 2  
2011/10/11: Unit 3

<Results> There were no healthy detectors because it was found that all detectors were short-circuited or disconnected between connector to detector at the bottom of reactor and pass-through slot to PCV (the situation is represented in the last figure in the right column (Wave Image)).



[Unit 2] (Aggregates of Neutron Detectors: 31, Detectors: 124)  
Disconnecting between connector to detector and pass-through slot to PCV: 1 detector  
Short-circuit between connector to detector and pass-through slot to PCV: 123 detectors

[Unit 3] (Aggregates of Neutron Detectors: 31, Detectors: 124)  
Disconnecting between connector to detector and pass-through slot to PCV: 25 detectors  
Short-circuit between connector to detector and pass-through slot to PCV: 99 detectors

[Summary] By effects of high temperature at the accident, there is a possibility that cables between connector to detector of LPRM cables were damaged and as a result they were short-circuited or disconnected. From the survey results, it was difficult to estimate a situation of lower part or inside of RPV.

