

# Results of confirming the status of Position Induction Probe of Fukushima Daiichi Nuclear Power Station Unit 1

<Objective> To judge the possibility of presuming the status of the bottom part of the reactor pressure vessel (hereinafter "RPV") by checking the condition at the contact points of Position Induction Probe (hereinafter "PIP") and estimating the soundness of the part between PIP and the cable.

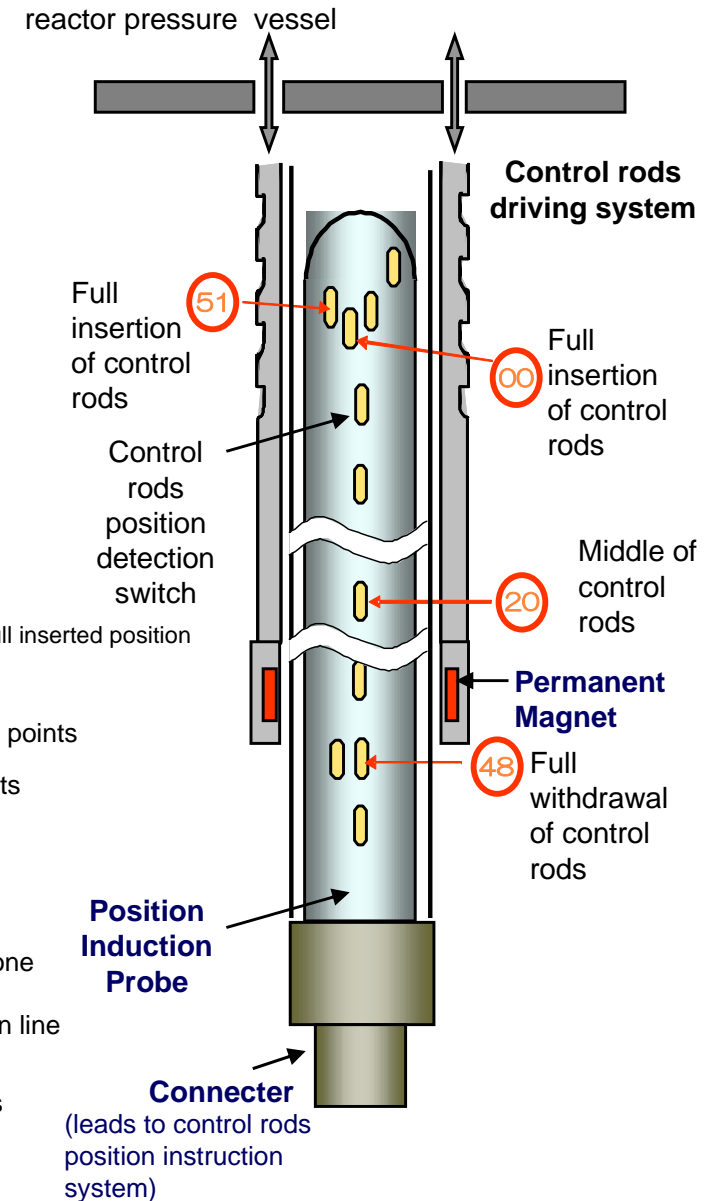
<Contents> To confirm that the full insertion position switch is on and the full withdrawal position switch is off.

<Term> September 12, 2011 – September 24, 2011

<Results> Regarding the 97 control rods, the results of confirming the operation of the four contact points of PIP are as follows.

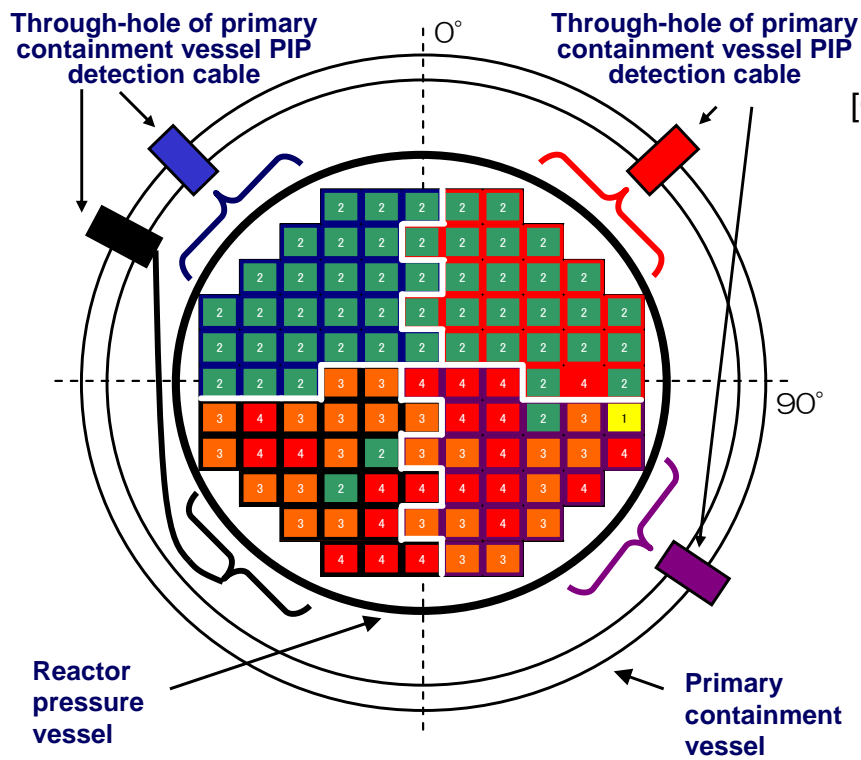
There is a possibility that the cable is damaged and short-circuit or disconnected within the area where the PIP detection cable penetrates the primary containment vessel or the cables are assembled. According to the results of this survey, it is difficult to presume the status of the bottom part of RPV.

Chart 1. Outline of the Position Induction Probe



Two contact points full insertion point

Chart 2. Results of confirming the operation of the Position Induction Probe



[Color coding]

- 1 : Conduction at two contact points at full inserted position
- 2 : Conduction at four contact points
- 3 : Conduction at one to three contact points
- 4 : No conduction at four contact points

[Frame coding]

- \* White line : Core quadrant sectional line
- Conduction at all points except one point  
⇒ Short circuit event of detection line
- Mixture of disconnections and conductions at the contact points