Company name	Kansai EPCO
Date of occurrence	04.December.2007
Unit name	Takahama 2
Event	Confirmation of the Flaws at the Inlet Nozzle Weld of Steam Generator B
International Nuclear Event Scale (INES)	0
Status of report	Interim report

Status when event occurred

During the 24th periodic inspection of Takahama Unit-2, eddy current tests (ECT)*1 for the inner surface of the inlet nozzle weld of steam generators (SG) A, B, and C were performed from November 25, 2007 until December 3, 2007 as a feed-back of Mihama Unit-2 where some damage was found at the steam generator inlet nozzle weld (600 nickel base alloy is used). The ECTs identified significant signal indications at the inlet nozzle weld of each steam generator, three (3) for SG-A (maximum length: 7 mm), two (2) for SG-B (max. length: 7 mm) and four (4) for SG-C (max. length: 14 mm).
The ultrasonic tests (UT)*2 were conducted to confirm the flaw depth for nine points on the inlet nozzle weld of steam generator A,B, and C which showed significant signal indication in the ECT. The maximum depth of the flaw was confirmed to be about 8 mm (the thickness of the nozzle is about 79 mm) which was evaluated to fall well below the limit value of 75 mm registered in the Application for the Construction Permit in accordance with the Electricity Enterprise Law.

*1 Eddy Current Test: Flaw detection test in which the eddy current is applied on the surface of the material, a flaw can be detected from the variation of the electromagnetic induction generated on the material.
*2 Ultrasonic Test (UT): The test method in which configuration, shape and sizes of the flaws can be measured by observing the echoes of the incident ultrasonic wave reflected from the test material.

Summary of examination of cause

Under investigation

Cause of event

Under investigation

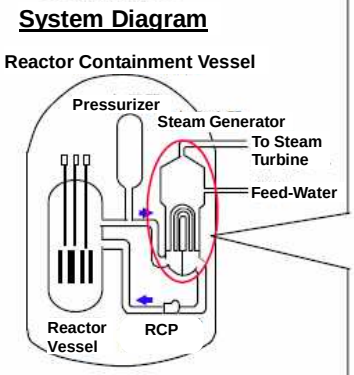
Measures to prevent recurrence

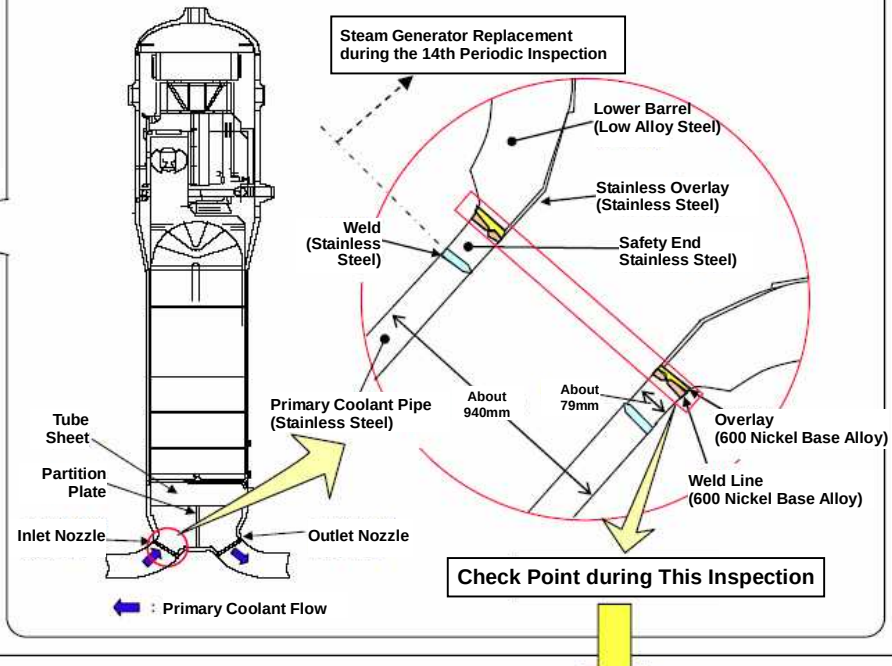
To be determined

Takahama Nuclear Power Station Unit-2 Periodic Inspection
(Flaw at Steam Generator Inlet Nozzle Weld)

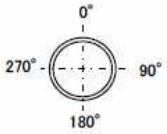
Incidence Location

System Diagram



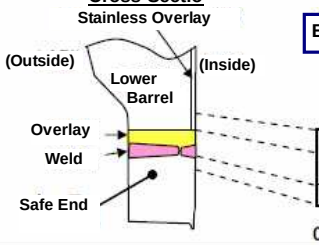


Check Point during This Inspection

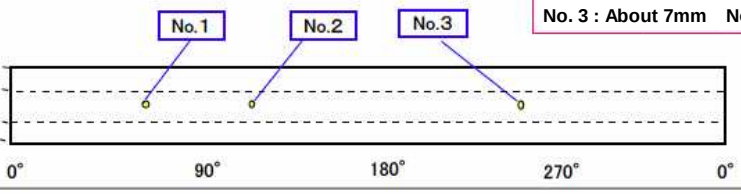


Inspection of Steam Generator A

Cross-Sectio



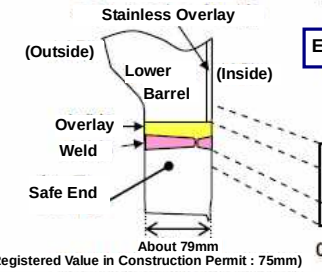
ECT Results (Significant Indication)



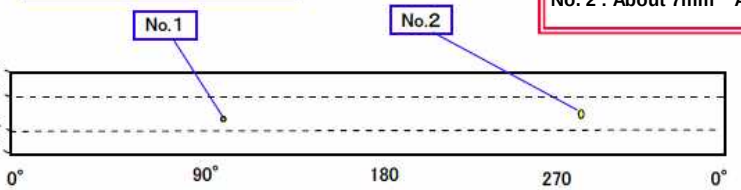
	Length	Depth
No. 1 :	About 6mm	Not Detectable
No. 2 :	About 6mm	Not Detectable
No. 3 :	About 7mm	Not Detectable

Inspection of Steam Generator B

Cross-Sectio



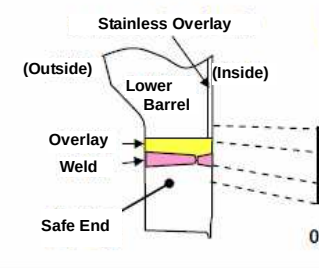
ECT Results (Significant Indication)



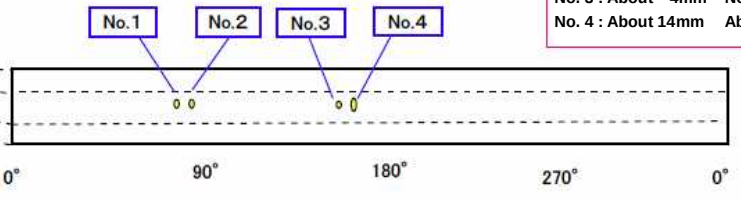
	Length	Depth
No. 1 :	About 5mm	Not Detectable
No. 2 :	About 7mm	About 6mm

Inspection of Steam Generator C

Cross-Sectio



ECT Results (Significant Indication)



	Length	Depth
No. 1 :	About 9mm	About 6mm
No. 2 :	About 8mm	Not Detectable
No. 3 :	About 4mm	Not Detectable
No. 4 :	About 14mm	About 8mm