

FirstEnergy

## ENGINEERING CHANGE SCREEN

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ECR-02-0805-00

NOP-CC-2003-04 Rev. 01

 BV1 BV2 DB PY SAFETY-RELATED AUGMENTED NON-SAFETY

Activity: Enlarge the outside chamfer on the faces of Reactor Coolant Pump P36-1 and P36-2 covers to provide for proper fit with the Pump Casing.

Engineering Change Request No.:  
02-0805-00

1. State the design function(s) of the structure, system or component.

Reactor Coolant System - The Reactor Coolant System performs the following functions which are important to safe plant operation:

- a. Transfers heat from the reactor core to the Steam Generator.
  - The RCS transfers heat from the core to the Steam Generator during steady state operation and for any design transient without exceeding core thermal limits.
  - The RCS removes decay heat from the core via redundant components and features using controls from inside or outside the control room.
  - The RCS is designed to be capable of natural circulation cooldown from normal operating temperature and pressure to conditions that permit operation of the Decay Heat Removal System.
- b. Forms a barrier against the release of reactor coolant and radioactive material to the environs.
- c. Transfers heat from the reactor core to containment during a loss of Steam Generator Cooling with high RCS pressure utilizing MU/HPI Core Cooling. MU/HPI Core Cooling is not an original design capability but a post operational modification.

The function of the Reactor Coolant Pumps (RCPs) is to circulate water to and from each SG. The pumps provide the required forced cooling flow through the core for adequate heat removal during core power operation.

The ECR initiator states that while disassembled for maintenance, RCP's P36-1 and P36-2 were discovered to have a previously undocumented recessed machine surface on the pump cases. This condition precluded proper case to cover fit-up and is the likely cause for gasket leakage at these joints. Therefore, this ECR is to ensure proper fit-up between the RCP cover and casing.

FlowServe, the pump manufacturer, provided documentation concurring with the fact that this condition may have been from original machining operations. FlowServe further states that enlarging the chamfer on the outside diameter of the cover face to 0.10" x 45° will ensure proper fit-up of this joint without compromise to any design attribute of the RCP's. Additionally, this cleaning operation does not affect the pressure integrity function of the cover.

2. State the bounding technical requirements of the structure, system or component.

The bounding technical requirements of this Reactor Coolant Pump cover-to-casing joint is to provide a proper alignment and fit-up of these items to assure proper gasket compression.

3. Identify source documents for the above.

A) Design Drawings

Vendor Drawing M-508-74, Reactor Coolant Pump Outline Drawing

B) System Description

SD-039A Reactor Coolant System.

**JUSTIFY "NO" ANSWERS BELOW IF LOGIC IS NOT OBVIOUS.**

SCREENING QUESTIONS	YES	NO
1. Would any interfacing organizations identify a design function change? Basis for answer: This ECR ensures cover-to-casing fit-up and does not represent a design functional change.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Would the change impact any bounding technical requirements? This ECR provides for proper fit-up of the cover-to-casing and therefore assures proper gasket compression.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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