Mechanical Seal Replacement Work Instruction WI-MNT-058, Revision 1

Meridian Coast Refining | Redhaven Refinery

Field	Value
Document	WI-MNT-058 rev 1
Owner	Dana Whitfield, Maintenance Planner
Issued	2 February 2025
Applies to	Centrifugal pumps with a single mechanical seal

1. Purpose

This instruction sets the steps for replacing a mechanical seal on a centrifugal pump, so that the work is done safely, the pump returns to service in a known condition, and the replacement is recorded.

2. Definitions

Isolation means the pump is stopped, locked out, drained and vented under a valid work permit before any part of the seal is touched.

Barrier fluid means the clean liquid between the two faces of a seal that keeps the process fluid away from the atmosphere.

Run-in period means the first 24 hours after restart, when the new seal is checked for leaks at every shift handover.

3. Requirements

- The work permit and the isolation certificate are checked before the pump is opened.
- The shaft sleeve is measured and is replaced if the wear is more than 0.05 mm.
- A new seal is fitted from sealed packaging, with the faces cleaned and the set screws tightened in a cross pattern.
- The pump is pressure tested with water to 1.5 times the operating pressure before it returns to service.
- The replacement report goes to the Maintenance Planner within 48 hours.

4. Records

The seal type, serial number and fitting date are recorded in the maintenance system under the equipment tag. The Maintenance Planner reviews the replacements of each critical pump every year.

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