

Rotary Pump Annual Maintenance

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Purpose: To perform an inspection and oil change of the slurry system rotary pumps.

Required PPE:









Safety Glasses

Hearing Protection

Steel Toed Shoes

Nitrile Gloves



Potential Hazards:



The slurry pumps have rotating components. Keep hands clear unless the unit is off and locked out and tagged out.



Electrical shock hazards exist when working on these pumps. Be sure the pump motor is locked out and tagged out before performing maintenance on this equipment.



The slurry pumps have hot surfaces, which could cause severe burns. Avoid contact with these hot surfaces.

Reference Documents: None

Required Equipment & Materials:

- Standard preventive maintenance tool kit
- Rags for cleaning
- FMO 1100 AW Gear Oil
- Catch pan for oil
- Oil funnel

	SAMPLE PROCEDURE ONLY – DO NOT USE FOR EQUIPMENT OPERATION	
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Steps	Awareness
Prepare the Pump for Inspection	
Remove the pump's face plate.	Remove pump faceplate.
Inspect Pump Shafts Bearings	
Grasp the pump shaft and apply an upward and downward force of about 30 pounds.	Check for Shaft Movement
Check that there is no detectible shaft movement.	Detectible shaft movement is an indication of a failing bearing.
Repeat inspection for the other shaft.	

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Steps	Awareness
Inspect the Pump Gears	
Grasp the pump shaft and attempt to rotate it in a clockwise direction.	Check for Gear Backlash
Check that the shaft will not rotate without transmitting motion to the other shaft.	Detectible shaft rotation indicates gear backlash which can be caused by worn gears or gears loose on shaft.
3. Repeat inspection for the other shaft.	
Inspect the Mechanical Seals	
 1. If applicable, obtain and inspect the chrome oxide mechanical seal for: Cracks Chips Scratches Grooves 	Inspect Chrome Oxide Mechanical Seal

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	Steps	Awareness
Cł	nange the Gearbox Oil	
1.	Inspect the gearbox case for any sign of oil leaks.	
2.	 Drain oil from the gearbox as follows: a. Remove the oil fill plug from the gearbox. b. Place a container under the oil drain plug. c. Slowly remove the oil drain plug and allow the gearbox to completely drain. d. Replace and tighten the oil drain plug. 	Oil Fill Plug Oil Drain Plug Change Gearbox Oil
3.	Add Bel-Ray No-Tox 90/140 Gear Oil to the gearbox through the fill opening. See chart at right for oil capacities.	 Pump Oil Capacities Model 15 1.3 ounces Model 30 2.0 ounces Model 60 6.0 ounces Model 130 6.0 ounces
4.	Replace and tighten the oil fill plug.	
5.	Clean up any oil spillage.	
6.	Dispose of used oil properly.	

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History of Revisions				
Revision Number	Revision Date	Revised By	Reason for Revision	
V1	21 Jun 22	M. Smith	Included review comments.	

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