

	<p style="text-align: center;">PLANNED PREVENTATIVE MAINTENANCE</p>	<p style="text-align: center;">EA-PPM</p>
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Introduction

The Planned Preventative Maintenance outlines the systematic process aimed at maintaining assets in satisfactory operating condition through timely detection and correction of issues before they develop into major defects. In addition, the requirements of **EA-I 01 Instruction for operation and maintenance of equipment, including pipelines, tanks and bunds** must be followed.

Pumps:

- **Routine checks:**
 - 1) Excessive noise and vibration
 - 2) Excessively hot bearing areas
 - 3) Flush or product leaks
 - 4) Mechanical seal leakage
 - 5) Gland compression and heat
 - 6) Check ball and roller bearings
 - 7) Check pump capacity and pressure
- **Periodic checks:**
 - 1) Every 200 operating hours: Check buffer chamber oil level
 - 2) Every 500 operating hours or 3 months: Check gear oil Level
 - 3) Every 2000 operating hours: Change buffer chamber oil
 - 4) After Exposure to strong contamination: Change buffer chamber oil

Pipelines:

- **Routine checks:**
 - 1) Conduct routine visual inspections to check for signs of corrosion, leaks, or damage. Use tools like ultrasonic testing to detect internal issues
 - 2) Periodically clean the pipelines to remove any buildup of debris, sludge, or corrosive substances that could damage the steel
 - 3) Regularly check and maintain valves to ensure they are functioning correctly and not causing pressure drops or leaks.



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Tank containers:

- **Routine checks:**

- 1) Conduct thorough visual inspections to check for signs of corrosion, leaks, or damage. Use non-destructive testing methods like ultrasonic testing to detect internal issues
- 2) Regularly check and maintain all valves, fittings, and seals to ensure they are functioning correctly and not causing leaks

Bunds:

- **Routine checks:**

- 1) Conduct routine visual inspections to check for cracks or any signs of wear and tear on the concrete surface. Ensure that the bund walls and floor are impermeable and free from any breaches.
- 2) Keep the bund area free from debris, vegetation.

Site inspection

- **Routine checks:**

- 1) Condition of the concreted area
- 2) Site access and fencing
- 3) Site tidiness
- 4) Litter, mud, dust, noise and odour
- 5) Security system

Oil-water separator

- **Routine checks:**

- 1) Visual inspections to check the condition and level of the fluid.
- 2) Level indicator check.
- 3) Visual inspection to check the condition of the coating.

- **Periodic checks:**

- 1) Every 2 years: completely empty the separator and clean the wall and foundation from all residue and sludge.