

TANK FARM

Notes :

- i. The scope covers piping, valve & fittings, general housekeeping, pumps & motors, effluent management, fire protection and security within the tankfarm.
- ii. Primarily, this monthly checklist serves as a quick reality check for in-service tanks based on general observations at identified critical areas during a site walk around

Tank Farm : _____ Report No : _____ Date of Inspection : _____

A TANK FARM		Satisfactory	Requires Attention	N/A	Actions & Remarks
A1 Stiles / Walking Platforms					
i.	Visually check the general condition of handrails and spiral stairway steps for corrosion and paint failure.				
ii.	Visually inspect rolling ladder steps for corrosion & mechanical failure. [EFRs]				
iii.	Visually check for wear and corrosion where rolling ladder attaches to the gauging platform. [EFRs]				
iv.	Visually inspect pivot bar for wear and security. [EFRs]				

A2 Bundwall & Drains					
i.	Visually check for any major cracks in the bundwall				
ii.	If it is a non-concrete bundwall i.e. earth or stone bundwall, visually check for possible erosion on exposed earthed portions or cracked cement joints on stone bundwall ?				
iii.	Check and ensure that all bundwall isolation				

	valves are operable and properly greased				
iv.	Visually check that the drains within the bund are clean and free of debris				

B PIPELINES / VALVES / FITTINGS		Satisfactory	Requires Attention	N/A	Actions & Remarks
B1 Pipelines					
i.	Piping resting on steel / concrete supports shall be visually examined for evidence of localized corrosion. <i>[This can be done on a sampled and systematic basis].</i>				
ii.	Piping and pipe supports shall be examined for evidence of excessive movement, general corrosion, mechanical damage or potential for leakage or failure.				
iii.	Wherever possible and practicable, cladding and insulation shall be examined for evidence of bulging, sagging and contamination from leaking product.				
iv.	Wrapped piping shall be examined for evidence of damage, corrosion or product leakage whenever possible and practicable.				

	Satisfactory	Requires Attention	N/A	Actions & Remarks
v. For underground or submerged pipelines where cathodic protection is employed, check that the CP system is working satisfactorily by taking readings from selected test points, where possible.				
vi. Check that the product is relief back into the storage tank at all times. Care must be taken to ensure no over-pressurization in isolated portion of any pipelines from occurring.				
B2 Valves				
*i. Valves shall be examined for evidence of product leakage through the packing glands, mechanical damage (e.g. bent spindle, worn-off bushing) and corrosion.				
ii. Visually check that all valves are well greased				
iii. Check to ensure that all relief systems are open to ensure no over-pressurisation due to thermal expansion of product				
B3 Fittings				
i. Flanges shall be examined for correct bolting (grade & length), correct length of exposed threads on bolts used, mechanical damage and product leakage.				

	Satisfactory	Requires Attention	N/A	Actions & Remarks
ii. Expansion joints and bellows shall be examined for evidence of distortion and twisting. (Manufacturers' recommendation on tolerances shall be observed).				
iii. Steel re-inforced and braided flex hoses shall be examined for mechanical damage, distortion, bulging, deterioration and evidence of product leakage.				
C PUMPS & MOTORS				
i. Visually check that all rotating shafts are properly guarded				
ii. Where possible, visually check for leaks around mechanical seals or packing glands of pumps				
iii. Where possible, observe that no high vibrations/cavitation is encountered.				
iv. Visually check for cracks on pump pads.				
v. Visually check that all pressure and vacuum gages are in good conditions				
D PAINTING				
i. Visually check the general condition of the coating system against paint failures i.e. blistering, flaky on pipelines/equipment, structures etc				

E	HOUSEKEEPING & SIGNAGES	Satisfactory	Requires Attention	N/A	Actions & Remarks
i.	Is the tank farm generally well kept and maintained ?				
ii.	Are signages i.e. speed limit, height restrictions, hazardous areas, hard hat areas etc sufficient and located appropriately within the facility ?				
iii.	Is vegetation controls in the tank farm effective ?				
iv.	Is the pump station generally well kept and maintained ?				
F	EFFLUENT MANAGEMENT				
i.	Visually check to ensure that the storm water drainage is clean and clear of debris and product				
ii.	Visually check that the oil/water separators are reasonably clean and skimmed of product				
iii.	Visually check that the drainage system leading to the OWS is clean and clear of debris & product				
vi.	Are all the OWS skimmed on a regular basis to ensure no accidental release of product into the water course				
iv.	If skimmers are used, are they effective ?				

G FIRE PROTECTION	Satisfactory	Requires Attention	N/A	Actions & Remarks
i. Check that the fire main ring is charged and maintained at the facility desired pressure rating.				
ii. Visually check to ensure that the fire hydrant valves and monitors are not leaking.				
iii. Check to ensure that fire boxes are equipped with hoses and water spray nozzles etc				
iv. Fire main ring and pipe supports shall be examined for evidence of excessive movement, general corrosion, mechanical damage or potential for leakage or failure.				
v. Check to ensure that fixed monitors are operable				
vi. Check that there is adequate foam in the primary foam tank system				
H SECURITY				
i. Visually check to ensure that the perimeter / boundary fences and gates are intact				
ii. Check all emergency exits are properly secured				
iii. Check and ensure that all CCTVs and/or Fence Intrusion Detection system etc are working				
iv. Check and ensure that there is no obstruction of view e.g. tree branches to any of the CCTVs				

	Satisfactory	Requires Attention	N/A	Actions & Remarks
v. Check that security signages fixed along the perimeter / boundary fence are adequate and prominently located				
vi. Visually check all effluent points are equipped with grills to prevent unauthorized entry				
I EHS / OPERATIONAL				
i. Where possible and necessary, check that contractors' work is covered by relevant work permit				
ii. Where possible, check that the work permit requirements are being complied				
iii. Check that both employees and contractors are attired with proper PPE in the tank farm.				
iv. Check that tank farm general safety requirements i.e. no smoking, no naked light etc are being observed				

<p>Inspection Summary Page</p> <p><u>Requires Attention</u></p>	<p><u>Actions & Remarks</u></p>
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Inspected by : _____

Reviewed & Actioned by : _____

Date : _____

Depot Manager : _____

Date : _____