



SAPREF LOPC PROGRAMME

SAPIA RPSM MEETING

25 JULY 2019



LOPC REDUCTION PLAN



	FOCUSED LOPC REDUCTION PLAN PSF #	BEST PRACTISES	CAUSE/THEME RELATED TO SERIOUS LOPCs (Cause ranking in brackets)
1	Leak reporting & repair plan	Find small, Fix small programme embedded.	
2	Double isolation & caps & bleeders PSF#1, PSF#2	Process Safety Fundamentals for use of double barriers for drains and vents. Do not leave open draining unattended.	Behavioural related to open draining
3	Flange management PSF#7	- Robust flange management training for maintenance staff and service providers. - Use of FLIR camera for early detection i.e. “find small, fix small. In addition to using FLIR during startup, we routinely carry out FLIR checks in all units, including floating roof tanks.	
4	Sewer cleaning PSF#3	Sewers undergo scheduled cleaning and testing as a preventative maintenance task.	Sewer overfill (3)
5	Piping integrity	Separate steering committees and programmes developed for resolving integrity related LOPCs.	Integrity related LOPCs (2)
6	#TankLOPCMustFall a) Operating practices b) Maintenance practices c) Slops management	- Following tank LOPCs, operational procedures and practices have been updated with training completed. - Roof drain maintenance strategies completed. - Slops system has inadequate physical and design barriers and rely heavily on the operational control barrier to prevent LOPCs. MoC to close design gaps.	Tank related LOPCs including slops system design (1)
7	Valve maintenance • Define PM critical valves • HFA first PSF#8	All valves are pressure tested before field installation with flange certificates, HFA control valves have inspection certificate after overhauled. Critical Control Valves and TSOV's are overhauled in TAR.	

LOPC REDUCTION PLAN



	FOCUSED LOPC REDUCTION PLAN	BEST PRACTISES	CAUSE/THEME RELATED TO SERIOUS LOPCs
8	Blocked in lines PSF#5 (Walk the line)	Identify blocked in lines exposed to heat of the day without a thermal expansion path. Permanent solution is addressed via MoC. “ Walk the line” to reduction of blocked in line cases especially across zones.	
9	LOPC incident investigation & learning	LOPC forum review all incidents, nominate and prepare one > 10kg for site wide learning. Continue with Assurance of learning from LOPC > 10kg is institutionalised through PUM self verification, by Production Supervisor.	
10	Pump Seals	Three reliability initiatives were kicked off in Jan 2019. Premise 1 – Restore barrier trolley integrity Premise 2 – Marking of operating windows on selected PG’s Premise 3 – Operator training	