



SMPOLYMER AMC REPORT

Gas Chlorination Site — Visual Inspection Report

Site Name:	Sinnar Municipal Council	Survey ID:	#1
Site Code:	S1	Status:	Submitted
City / Country:	Sinnar India	Survey Date:	28 Jun 2026
Overall Score:	N/A	Submitted:	28 Jun 2026 05:54

Engineer / Site Visit Details

Engineer Name:	Barku Patil	Role:	Client Admin
Contact:	barku.patil@smpolymers.com	Visit Date:	28 Jun 2026
Site Visited:	Sinnar Municipal Council (S1)	Site Address:	Sinnar Municipal Council, Sinnar Dist- Nashik, Sinnar, India

Risk Level	Count
CRITICAL	0
HIGH	0
MEDIUM	0
Survey Pass	0
Survey Fail	0
AI Findings	1

SM Visual Inspection Check Register — All 9 Disciplines

DCL-VIS-INSP-001 Rev 1.0 · D'Chlorient Systems / SM Polymer | Status: Pass / Fail / N/A — populated from survey responses where available.

1 · Electrical Systems

ID	Sub-System	Defect Description	Risk	Status
EL-001	Control Panel & MCC	Panel door open, damaged, or missing	HIGH	—
EL-002	Control Panel & MCC	Water ingress or condensation inside panel	HIGH	—
EL-003	Control Panel & MCC	Overheating — discolouration, scorch marks or melting	CRITICAL	—
EL-004	Control Panel & MCC	Incorrect or absent cable labelling	LOW	—
EL-005	Control Panel & MCC	Rodent damage to wiring	HIGH	—
EL-006	Cable Trays & Conduits	Cable tray overloaded / cables drooping	MEDIUM	—
EL-007	Cable Trays & Conduits	Conduit corrosion or physical damage	MEDIUM	—
EL-008	Cable Trays & Conduits	Cable glands not sealed at panel/junction entries	MEDIUM	—
EL-009	Motors & Drives	Motor casing corrosion or paint loss	MEDIUM	—
EL-010	Motors & Drives	Cable entry to motor unsealed	MEDIUM	—
EL-011	Motors & Drives	Motor overheating — hot surface visible	HIGH	—
EL-012	Earthing & Bonding	Earthing conductor disconnected or corroded	HIGH	—
EL-013	Earthing & Bonding	Chlorine container not bonded to earth (static/lightning risk)	CRITICAL	—
EL-014	Emergency Lighting	Emergency light non-functional or absent in chlorine room	HIGH	—
EL-015	UPS & Battery Systems	UPS battery corrosion or swelling	HIGH	—
EL-016	Solenoid Valves & Controls	Solenoid valve coil burnt or corroded	MEDIUM	—

2 · Mechanical Equipment

ID	Sub-System	Defect Description	Risk	Status
ME-001	Vacuum Regulator	Body discolouration or yellow chlorine crystalline deposit	CRITICAL	—
ME-002	Vacuum Regulator	Regulator inlet filter visibly fouled	MEDIUM	—
ME-003	Vacuum Regulator	Vacuum gauge cracked, fogged, or reading zero	MEDIUM	—
ME-004	Gas Chlorinator Body	Rotameter tube cracked, foggy, or flow ball missing	MEDIUM	—
ME-005	Gas Chlorinator Body	Chlorinator mounting bracket cracked or loose	HIGH	—
ME-006	Gas Chlorinator Body	Diaphragm failure — visible distortion or bulging	CRITICAL	—
ME-007	Pumps — Motive Water	Pump mechanical seal leak	MEDIUM	—
ME-008	Pumps — Motive Water	Pump casing external corrosion	MEDIUM	—
ME-009	Pumps — Motive Water	Pump base plate flooded or corroded	MEDIUM	—
ME-010	Injector Assembly	Injector body cracked or physically damaged	HIGH	—
ME-011	Injector Assembly	Check valve on solution line physically damaged	HIGH	—
ME-012	Chlorine Containers	Container body corrosion, dents, or bulging	CRITICAL	—
ME-013	Chlorine Containers	Valve cap missing on standby/empty container	HIGH	—
ME-014	Chlorine Containers	Container not properly secured (chain/cradle missing)	HIGH	—

ID	Sub-System	Defect Description	Risk	Status
ME-015	Flexible Connectors	Flexible connector kinked, cracked, or discoloured	HIGH	—
ME-016	Lifting Equipment	Hoist/crane visual corrosion or damaged hook	HIGH	—
ME-017	Chlorine Emergency Repair Kit	Repair kit absent, damaged, or incomplete	HIGH	—

3 · Piping & Pipework

ID	Sub-System	Defect Description	Risk	Status
PP-001	Gas-Side Piping	Yellow colour code absent or faded on Cl ₂ gas pipe	MEDIUM	—
PP-002	Gas-Side Piping	Chlorine crystalline deposits (yellow/green) on pipe exterior	CRITICAL	—
PP-003	Gas-Side Piping	PVC pipe sagging between supports	MEDIUM	—
PP-004	Gas-Side Piping	Flanged joint in gas-side service (non-compliant)	HIGH	—
PP-005	Solution-Side Piping	UV degradation — chalking, crazing, or discolouration of PVC	MEDIUM	—
PP-006	Solution-Side Piping	Wet stains or drips on solution pipe exterior	HIGH	—
PP-007	Solution-Side Piping	Metallic pipe used in chlorine solution service	HIGH	—
PP-008	Pipe Supports & Hangers	Ferrous saddle in direct contact with PVC Cl ₂ pipe	MEDIUM	—
PP-009	Pipe Supports & Hangers	Pipe support anchor bolt corroded or loose	MEDIUM	—
PP-010	Pipe Penetrations	Wall/slab penetration not fire-rated or sealed	MEDIUM	—
PP-011	Bund & Drainage	Floor drain open to sewer (not connected to scrubber/sump)	CRITICAL	—
PP-012	Bund & Drainage	Bund wall cracked or containment integrity compromised	HIGH	—

4 · Valves & Actuators

ID	Sub-System	Defect Description	Risk	Status
VA-001	Container Valve	Container valve handwheel corroded or missing	HIGH	—
VA-002	Container Valve	Yoke/valve outlet crystalline leakage deposit	CRITICAL	—
VA-003	Isolation Valves	Manual isolation valve handle missing or seized	HIGH	—
VA-004	Isolation Valves	Isolation valve unlabelled (no open/close indicator or duty tag)	MEDIUM	—
VA-005	Isolation Valves	Valve packing gland leaking	HIGH	—
VA-006	Emergency Isolation Valve (EIV)	EIV not labelled or not accessible	CRITICAL	—
VA-007	Emergency Isolation Valve (EIV)	EIV actuator power or pneumatic supply disconnected	CRITICAL	—
VA-008	Solenoid & Automatic Valves	Solenoid valve body corroded or leaking	MEDIUM	—
VA-009	Solenoid & Automatic Valves	Solenoid de-energised / failed open (passing through)	HIGH	—
VA-010	Pressure Relief Valve	PRV outlet not directed to scrubber	CRITICAL	—
VA-011	Rotary Selector Valve	Rotary selector valve position indicator unreadable	MEDIUM	—

5 · Regulators & Chlorinator

ID	Sub-System	Defect Description	Risk	Status
RC-001	Vacuum Regulator — Inlet	Outlet connection crystalline deposit (Cl ₂ leak indicator)	CRITICAL	—

ID	Sub-System	Defect Description	Risk	Status
RC-002	Vacuum Regulator — Inlet	Regulator body cracked or physically damaged	CRITICAL	—
RC-003	Vacuum Regulator — Inlet	Regulator vent port obstructed	HIGH	—
RC-004	Vacuum Regulator — General	Operating vacuum outside rated range (gauge reading incorrect)	MEDIUM	—
RC-005	Chlorinator — General	Chlorinator not mounted vertically (V-notch flow error)	MEDIUM	—
RC-006	Chlorinator — General	Feed tube kinked or disconnected from chlorinator to injector	HIGH	—
RC-007	Chlorinator — V-notch	Rotameter ball or float visibly corroded or discoloured	MEDIUM	—
RC-008	Standby Chlorinator	Standby chlorinator not in ready condition	HIGH	—
RC-009	Automatic Switchover	Switchover relay indicator showing fault	HIGH	—
RC-010	Injector — Vacuum Side	Injector motive water strainer visibly fouled	MEDIUM	—

6 · Gas C/ Safety Standards

ID	Sub-System	Defect Description	Risk	Status
GS-001	Gas Detection	Fixed C/ gas detector absent or not at correct height	CRITICAL	—
GS-002	Gas Detection	Gas detector sensor expired or visibly damaged	CRITICAL	—
GS-003	Gas Detection	Gas detector alarm horn or strobe non-functional	HIGH	—
GS-004	Ventilation System	Ventilation fan inoperable or duct blocked	CRITICAL	—
GS-005	Ventilation System	Exhaust outlet directed toward occupied area or air intake	HIGH	—
GS-006	Chlorine Scrubber	Scrubber caustic solution level low or absent	HIGH	—
GS-007	Chlorine Scrubber	Scrubber fan or pump visually damaged or not operational	CRITICAL	—
GS-008	Safety Signage	DANGER: CHLORINE entry warning sign absent	MEDIUM	—
GS-009	Safety Signage	Emergency procedure poster absent or not legible	MEDIUM	—
GS-010	Safety Signage	Evacuation route signage absent or pointing incorrectly	HIGH	—
GS-011	Emergency Shower/Eyewash	Emergency shower or eyewash absent within 10 seconds of C/ room	HIGH	—
GS-012	Emergency Shower/Eyewash	Eyewash nozzle cap missing or unit not flushed recently	MEDIUM	—
GS-013	Fire Suppression	Portable dry-powder extinguisher absent or expired	MEDIUM	—

7 · Emergency Preparedness

ID	Sub-System	Defect Description	Risk	Status
EP-001	SCBA Equipment	SCBA absent from designated location near chlorine room	CRITICAL	—
EP-002	SCBA Equipment	SCBA cylinder pressure below required level (< 200 bar)	CRITICAL	—
EP-003	SCBA Equipment	SCBA facepiece visibly cracked, degraded, or seal distorted	CRITICAL	—
EP-004	SCBA Equipment	SCBA stored inside chlorine room (renders inaccessible during leak)	CRITICAL	—
EP-005	SCBA Equipment	Kit not matching container type in service (cylinder vs. tonne)	HIGH	—

ID	Sub-System	Defect Description	Risk	Status
EP-006	Assembly Point	Emergency assembly point not marked or obstructed	MEDIUM	—
EP-007	Communication	Emergency communication (alarm bell/phone) not visible or functional	HIGH	—
EP-008	Wind Direction	Wind direction indicator absent or unreadable	MEDIUM	—
EP-009	Muster & Evacuation	Evacuation route obstructed	HIGH	—
EP-010	Emergency Contacts	Emergency contact board absent or details outdated	MEDIUM	—

8 · Personal Safety & PPE

ID	Sub-System	Defect Description	Risk	Status
PS-001	PPE — Respiratory	SCBA donning SOP not posted at SCBA storage point	MEDIUM	—
PS-002	PPE — Respiratory	Half-mask respirator (chlorine canister) not available as backup	HIGH	—
PS-003	PPE — Chemical Suit	Chemical protective suit absent or damaged	HIGH	—
PS-004	PPE — Chemical Suit	Chemical suit stored inside or immediately adjacent to chlorine room	HIGH	—
PS-005	PPE — Gloves & Boots	Chlorine-duty gloves absent, holed, or wrong material	HIGH	—
PS-006	PPE — Gloves & Boots	Chemical-resistant safety boots absent or inappropriate footwear	HIGH	—
PS-007	PPE — Face & Eye	Chemical splash goggles absent or damaged	HIGH	—
PS-008	PPE — Face & Eye	Face shield absent from PPE for container handling	MEDIUM	—
PS-009	PPE Storage & Inspection	PPE cabinet locked and key not accessible to all operators	HIGH	—
PS-010	PPE Storage & Inspection	PPE inspection records not maintained	MEDIUM	—
PS-011	Operator Dress Code	Operator wearing incorrect clothing in chlorine room	MEDIUM	—

9 · SOPs & Documentation

ID	Sub-System	Defect Description	Risk	Status
SD-001	Operating Procedures	Chlorinator startup SOP absent from chlorine room	MEDIUM	—
SD-002	Operating Procedures	Emergency shutdown procedure not posted at chlorinator	HIGH	—
SD-003	Operating Procedures	Dosing rate logbook absent or not current (> 7 days without entry)	MEDIUM	—
SD-004	Operating Procedures	Permit-to-Work (PTW) system not in use for maintenance	HIGH	—
SD-005	Equipment Labels & Tags	Chlorinator identification tag missing	LOW	—
SD-006	Equipment Labels & Tags	P&ID; drawings not available in chlorine room or operations room	MEDIUM	—
SD-007	Calibration Records	No calibration sticker on Cl ₂ gas detector	HIGH	—
SD-008	Calibration Records	Residual chlorine analyser no calibration label	MEDIUM	—
SD-009	HAZMAT Documentation	Safety Data Sheet (SDS) for chlorine not accessible on-site	MEDIUM	—
SD-010	Incident Records	Incident / near-miss register not available or not current	MEDIUM	—
SD-011	Regulatory Compliance	PESO licence for chlorine storage not displayed	HIGH	—

AI Image-Scan Findings

Total findings from 1 uploaded images (non-clean only, sorted by confidence). Each finding below shows the scanned photo together with the AI-flagged defect, confidence, acceptance status, linked risk-register entry and review notes.

	S001-20260628-052951-0002 General Defect Class: Dirt Debris Confidence: 69% Accepted: Yes Risk Flagged: LOW — Open Notes: Technician: Maintenance in progress
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Master Risk Register

All open risk items from survey fails and accepted AI scan findings — ordered by severity.

#	Hazard / Description	Category	Severity	Likelihood	Risk Level	Status
1	[S001-20260628-052951-0002] AI detected dirt debris (confidence: 69%) — Ref: ISO 45001 §8.1.2	Operational	Low	Medium	Low	Open