

# Industrial Instrumentation Shutdown Readiness Checklist

A practical pre-shutdown checklist for industrial teams preparing instrumentation, analyzers, calibration work, loop checks and reliability tasks.

## 1. Scope and Planning

Check	Item	Notes / Owner
<input type="checkbox"/>	Confirm shutdown scope, affected areas and instrument systems.	
<input type="checkbox"/>	Identify safety-critical loops, analyzer shelters, emissions systems and control loops.	
<input type="checkbox"/>	Confirm job cards, permits, isolation requirements and access constraints.	
<input type="checkbox"/>	Review previous shutdown defects, repeat failures and unresolved punch-list items.	
<input type="checkbox"/>	Confirm vendor or specialist support requirements before the shutdown window.	

## 2. Documentation Readiness

Check	Item	Notes / Owner
<input type="checkbox"/>	Check latest P&IDs, loop drawings, wiring diagrams and instrument index.	
<input type="checkbox"/>	Confirm calibration ranges, alarm settings, trip points and datasheet values.	
<input type="checkbox"/>	Prepare marked-up drawings for any planned modification or replacement.	
<input type="checkbox"/>	Ensure as-found/as-left forms and test sheets are ready before work starts.	
<input type="checkbox"/>	Confirm change-control requirements for any instrument range or logic changes.	

## 3. Calibration and Test Equipment

Check	Item	Notes / Owner
<input type="checkbox"/>	Check calibration certificates for pressure, temperature, electrical and flow equipment.	
<input type="checkbox"/>	Confirm test equipment battery condition, leads, fittings, adaptors and hoses.	
<input type="checkbox"/>	Prepare HART/field communicator, laptop software, licences and cables.	
<input type="checkbox"/>	Confirm spare gases, regulators, tubing and analyzer calibration standards.	
<input type="checkbox"/>	Verify safe power supply arrangements for temporary or portable calibration equipment.	

## 4. Field Instrument Readiness

Check	Item	Notes / Owner
<input type="checkbox"/>	Confirm access to impulse lines, thermowells, junction boxes, valves and transmitters.	

<input type="checkbox"/>	Inspect common failure points: water ingress, loose glands, blocked impulse lines, corrosion and damaged cables.	
<input type="checkbox"/>	Check critical spares: transmitters, sensors, solenoids, relays, fuses and barriers.	
<input type="checkbox"/>	Plan loop checks for high-risk or recently modified instruments.	
<input type="checkbox"/>	Record known bad actors and assign priority before shutdown execution.	

## 5. Analyzer and Sample System Readiness

Check	Item	Notes / Owner
<input type="checkbox"/>	Review analyzer fault history, drift trend, calibration failures and sample system issues.	
<input type="checkbox"/>	Check sample conditioning, filters, regulators, drains, heat tracing and flow paths.	
<input type="checkbox"/>	Prepare calibration gas, carrier gas, spare columns, valves and detector consumables.	
<input type="checkbox"/>	Confirm startup sequence and stabilization time after shutdown.	
<input type="checkbox"/>	Plan chromatogram or analyzer performance checks before returning to service.	

## 6. Startup and Handover

Check	Item	Notes / Owner
<input type="checkbox"/>	Confirm all loops are returned to service and bypasses/isolations are removed.	
<input type="checkbox"/>	Check alarms, trips, interlocks and historian trends after startup.	
<input type="checkbox"/>	Record as-found/as-left results and outstanding actions.	
<input type="checkbox"/>	Capture lessons learned and update maintenance strategy for repeat failures.	
<input type="checkbox"/>	Schedule follow-up review for critical instruments after steady operation resumes.	

**Need help applying this to your site?** Miracle Innovation Solution supports industrial teams with instrumentation training, analyzer troubleshooting, procurement advice, calibration strategy and reliability improvement.

miracleinnovationsolution.com | training@miracleinnovationsolution.com