



Emerson Impact Partner

TURBINE BYPASS VALVE HEALTH ASSESSMENT

AS COMBINED CYCLE POWER PLANTS MATURE, PROACTIVE MAINTENANCE BECOMES AN EVEN GREATER PRIORITY.

Over time, turbine bypass valves experience thermal and mechanical fatigue, creating the opportunity for leakage. The resulting safety, cost and downtime implications can be significant.

Improve Reliability.
Reduce Risk.
Plan with Confidence.



A proactive assessment of turbine bypass valve health is essential to maintaining consistent operations. Understanding performance now, and implementing corrective actions during outages, supports seamless and efficient operating conditions.

Are Your Turbine Bypass Valves Keeping Up?

- Have you experienced unexpected valve performance issues or leakage?
- Do you have confidence in the current condition of your bypass valves?
- Are you prepared for long lead times on critical parts if something fails?

If any of these sound familiar, it may be time to take a closer look at your turbine bypass valves.

Operating Conditions Are Changing

Power producers are facing increased demands from load cycling, renewable integration and efficiency targets. These conditions introduce higher thermal and mechanical stresses on turbine bypass valves, often accelerating wear and reducing reliability.

Without a clear understanding of valve condition, plants are at risk for:

- Unplanned downtime
- Reduced efficiency
- Increased maintenance costs
- Extended outages due to reactive repairs



A Better Way to Understand Valve Health

The Turbine Bypass Health Assessment brings together diagnostics, inspection and repair services into a single, structured evaluation of your valves. This approach provides the data and insight needed to make informed decisions, helping you address issues early and plan your maintenance roadmap.

Health Assessment Scope:

Diagnostic Testing & Evaluation

- Diagnostic testing and analysis (Valvelink or FlowScanner)
- As-found and as-left performance diagnostics
- Calibration verification of positioners and accessories

Valve & Component Inspection

- Inspection of control trim and internal components
- Evaluation of valve body, seating surfaces and weld areas
- Borescope inspection (as required)
- Replacement of valve soft goods

Nozzle Inspection & Assessment

- Removal and inspection of spray nozzles
- Gasket replacement
- Recommendations for repair or replacement

Actuator & Accessory Services

- Actuator inspection and rebuild
- Replacement of actuator soft goods
- Calibration and tuning
- Testing of boosters, solenoids and positioners

Additional Capabilities:

- Ultrasonic leak detection
- Instrumentation services
- Valve performance monitoring

Health Assessment Results:

After the assessment, you will have:

- A clear understanding of current valve condition
- Documented findings from diagnostics and inspections
- Recommendations for repair, replacement or monitoring
- A prioritized plan for future outages
- Insight into parts and lead-time considerations

This proactive approach to turbine bypass valve health can help you:

- Reduce the risk of unplanned outages
- Identify and address issues earlier
- Improve valve performance and reliability
- Plan maintenance more effectively
- Avoid delays caused by long-lead components

The Turbine Bypass Health Assessment delivers the information needed to plan maintenance, prioritize repairs and support long-term reliability. The assessment data enables informed decision making and a planned maintenance program that contributes to operational success.

Work with ECI to schedule an assessment and ensure your turbine bypass valves are prepared for today's operating demands.



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SALES AND INFORMATION

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or **www.ECI.us**

After Hours Emergency
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