



Reverse Osmosis System Optimization Audit Services

Ensure Your RO System Operates at Peak Performance

What Is an Optimization Audit?

An RO Optimization Audit is an onsite inspection performed by ALSI technicians to verify that a reverse osmosis system is operating within its designed specifications. System performance data is reviewed and analyzed while instrumentation, membrane operation, and chemical usage are evaluated.

The audit helps identify operational issues such as membrane fouling, improper instrument settings, and inefficient chemical dosing that may negatively impact system performance.

Benefits



Prevent Unexpected System Failures

Identify fouling, scaling, and system issues early



Optimize Operating Costs

Reduce chemical, energy, and maintenance costs



Extend Membrane Life

Reduce premature membrane degradation



Protect Water Quality

Maintain consistent permeate quality



Improve System Performance

Restore proper flow and operating efficiency with OEM system verification

Industry Needs

Costs

- Mitigate costs associated with unexpected equipment failure, cleaning and downtime
- Extended equipment life cycle costs
- Reduce Energy Usage

Performance

- Ease of Operation
- Durable equipment and parts built for continuous cycle times
- Consistent Water Quality

OEM Service

- Proactive and responsive field service technicians
- Comprehensive training program to combat operator turnover

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Optimization Audit Scope:

An ALSI RO Optimization Audit includes a comprehensive inspection of the reverse osmosis system to verify proper operation and identify performance improvements. The process is executed with the following:

- **System Verification:**
 - Verify membrane vessels operate within specification
 - Validate system operation against OEM design
- **Instrumentation:**
 - Calibrate instruments where possible
 - Record system operating performance data
- **Filtration & Pretreatment:**
 - Replace owner-supplied cartridge filters if required
 - Inspect filtration components for proper operation
- **Chemical Systems:**
 - Document chemical usage
- **Maintenance Support and Reporting:**
 - Identify abnormal system conditions
 - Recommend service kits or replacement parts
 - Provide written system status report with maintenance recommendations

Importance of Optimization Audits

Reverse osmosis membranes are sensitive to fouling, scaling, and operational imbalances. Even small changes in system conditions can impact water quality, energy consumption, and membrane lifespan.

Routine optimization audits help identify early signs of performance loss before reduced efficiency or costly equipment replacement occurs.



RISK
Dirty pre-cartridge filters
Dirty RO membranes
Low chemical levels for dosing
Increased Differential Pressure



RESULT
Pressure Drop increases
Poor water quality, Higher energy cost
Scaling of the membranes
Increased power consumption