



Critical Equipment Evaluation

Defining and Protecting the Assets That Matter Most Intelligence

The NAES Critical Equipment Evaluation identifies and documents the assets whose failure would have the greatest impact on safety, regulatory compliance, availability, and cost.

By applying a formal, criteria-based methodology, NAES helps facilities distinguish truly mission-critical equipment from the broader asset population and establish a defensible foundation for reliability and risk management programs.

Why Critical Equipment Matters

Critical equipment is an asset whose failure could impact safety, environmental compliance, reliable generation, or high-cost equipment. This definition is modified based on input from the owner to ensure alignment with specific operational priorities.

Without a formal, auditable process to identify and manage these assets, facilities often misallocate maintenance resources and underestimate operational risk.

How NAES Performs the Evaluation

NAES applies a standardized, criteria-based methodology embedded in its O&M reliability standards. The evaluation is conducted by a cross-functional team of operations, maintenance, and engineering professionals and includes:

- Review of all plant systems and major equipment
- Application of an NAES criticality scoring matrix
- Evaluation of safety, regulatory, performance, and cost impact
- Classification of assets into defined criticality levels (A, B, C, D)
- Validation of assumptions using operating experience and historical events

The process is structured, repeatable, and aligned with owner objectives.



What You Receive

The Critical Equipment Evaluation produces:

- A documented and defensible Critical Equipment List
- Clear rationale for why each asset is deemed critical
- Criticality rankings that support prioritization decisions
- Recommendations for tagging critical assets in the CMMS
- A reliability foundation that directly supports FMEA, SPOF, and PM strategy development

The resulting output becomes a living reference that guides maintenance planning, spare parts strategy, and risk mitigation activities.

Where This Fits

This evaluation is commonly used as:

- The first step in a formal reliability program
- A prerequisite for Single Point of Failure and FMEA analyses
- A validation tool during ownership transition or due diligence
- A periodic review to ensure asset risk profiles remain accurate

NAES recommends routine reassessment to account for equipment aging, operational changes, and performance history.

Value to Owners and Operators

- Clear visibility into mission-critical risk drivers
- Improved prioritization of maintenance and capital spend
- Reduced exposure to safety, regulatory, and reliability events
- Stronger alignment between operations, maintenance, and engineering

Engage NAES Asset Solutions to assess whether your CMMS is actively reducing risk, or unintentionally creating it.

