



# Equipment Health Index (EHI) Review Checklist

## Overall Performance & Trending

Evaluates overall EHI score trends and identifies areas requiring immediate attention. Focuses on broader performance indicators.

### Current EHI Score

### Previous EHI Score (for comparison)

### Percentage Change in EHI Score

### Summary of Key Trends Observed in EHI Data

**Overall Assessment of Equipment Health (Based on EHI)**

- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor

**Areas of Greatest Concern (Based on EHI)**

- ☐ Mechanical Systems
- ☐ Electrical Systems
- ☐ Process Control
- ☐ Lubrication
- ☐ Hydraulics

**Date of Last EHI Review**

Enter date...

**Recommendations for Further Investigation or Action**

Write something...

**Vibration Analysis**

Assesses vibration data to detect imbalances, misalignment, bearing faults, and other mechanical issues. Focuses on critical rotating equipment.

**Overall Vibration Severity Score (RMS)**

Enter a number...

**Axial Vibration (mm/s)**

Enter a number...

**Radial Vibration (mm/s)**

Enter a number...

**Tangential Vibration (mm/s)**

Enter a number...


**Phase Analysis (if applicable)**

- ☐ Normal
- ☐ Phase Shift Detected
- ☐ Unstable Phase
- ☐ Not Applicable

**Description of Observed Vibration Patterns**

Write something...

**Vibration Spectrum Graph**

 Upload File

### Impulse Characteristics (if present)

- ☐ None
- ☐ Low
- ☐ Moderate
- ☐ High

### Date of Last Vibration Analysis

## Oil Analysis

Reviews oil samples for wear debris, contaminants, and lubricant degradation to predict failures and optimize maintenance schedules. Applies to lubricated equipment.

### Viscosity (cSt @ 40°C)

### Total Base Number (TBN) (mg KOH/g)

### Acid Number (AN) (mg KOH/g)

### Water Content (%)

### Wear Metal Concentration - Iron (ppm)

Enter a number...

### Wear Metal Concentration - Copper (ppm)

Enter a number...

### Particle Contamination (ISO Code)

- ☐ ISO 00
- ☐ ISO 03
- ☐ ISO 06
- ☐ ISO 09
- ☐ ISO 12
- ☐ ISO 14
- ☐ ISO 16
- ☐ ISO 18
- ☐ ISO 21
- ☐ ISO 24


### Observations/Comments on Oil Condition

Write something...

### Oil Sample Date

Enter date...

# Oil Analysis Report

 Upload File

## Thermography (Infrared Scanning)

Evaluates thermal images to identify hotspots indicative of electrical, mechanical, or process inefficiencies.

### Maximum Hotspot Temperature (Surface °C)

Enter a number...

### Ambient Temperature (°C)

Enter a number...

### Emissivity Value Used

Enter a number...

### Description of Hotspot Anomalies Observed (if any)

Write something...

### Areas Inspected (Select all that apply)

- ☐ Electrical Panels
- ☐ Motors & Drives
- ☐ Pumps
- ☐ Gearboxes
- ☐ Process Piping
- ☐ HVAC Systems
- ☐ Other (Specify in long text)

### Overall Thermal Image Quality


- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor

### Date of Thermography Scan

Enter date...

### Time of Thermography Scan

### Attach Thermography Image(s)

 Upload File

## Ultrasonic Testing

Reviews ultrasonic data to detect leaks, corrosion, bearing faults, and other anomalies in equipment components.

**Bearing Outer Race Defect Amplitude (dB)**

Enter a number...

**Bearing Inner Race Defect Amplitude (dB)**

Enter a number...

**Bearing Ball/Roller Defect Amplitude (dB)**

Enter a number...

**Gear Mesh Frequency Amplitude (dB)**

Enter a number...


**Description of Detected Anomalies (if any)**

Write something...

**Leak Detection Status**

- ☐ No Leaks Detected
- ☐ Minor Leak Detected
- ☐ Significant Leak Detected
- ☐ Leak Location Unknown

**Ultrasonic Sound Waveforms/Spectrum**

 Upload File



### Date of Ultrasonic Testing

### Time of Ultrasonic Testing

## Process Parameter Monitoring

Analyzes process data (e.g., pressure, temperature, flow) to identify deviations from normal operating conditions that impact equipment health.

### Production Rate (Units/Hour)

### Operating Pressure (PSI)

### Operating Temperature (Degrees Celsius)

### Power Consumption (kW)

### Cycle Time (Normal Range)

- ☐ Within Specification
- ☐ Slightly Outside
- ☐ Significantly Outside

### Observed Process Anomalies/Deviations

Write something...

### Date of Last Process Parameter Calibration

Enter date...

### Process Parameter Stability

- ☐ Stable
- ☐ Slightly Fluctuating
- ☐ Highly Fluctuating

### Actions Taken Regarding Process Parameter Deviations

Write something...

## Data Integrity and Reliability

Verifies the accuracy and completeness of data collected for EHI calculations and ensures data sources are reliable.

### Data Source Accuracy Score (1-10)

Enter a number...

### Data Source Verification Method

- ☐ Manual Review
- ☐ Automated Validation
- ☐ Calibration Records
- ☐ Third-Party Audit

### Last Data Source Validation Date

Enter date...

### Description of Data Validation Procedures

Write something...

### Data Transmission Method

- ☐ Direct Connection
- ☐ Wireless
- ☐ Networked
- ☐ Manual Entry

### Data Loss Rate (%)

Enter a number...

### Notes on data inconsistencies or anomalies detected

Write something...

### Calibration Status of Sensors

- ☐ Within Calibration Period
- ☐ Calibration Needed
- ☐ Calibration Overdue

## Alarm Management & Response

Reviews alarm thresholds, response procedures, and documentation to ensure timely and appropriate action is taken when equipment issues are detected.

### Number of Unacknowledged Alarms

Enter a number...

### Alarm Response Protocol Followed?

- ☐ Yes
- ☐ No
- ☐ N/A

### Brief Description of Alarm Response Actions Taken

Write something...

### Date of Last Alarm Response Training

Enter date...

### Average Time to Acknowledge an Alarm

### Root Cause Analysis Performed for Recurring Alarms?

- ☐ Yes
- ☐ No
- ☐ N/A

### Summary of Findings from Root Cause Analysis (if applicable)

Write something...

### Attach screenshot of recent alarm log (if applicable)

 Upload File

## Maintenance History Review

Examines past maintenance records to identify recurring problems, assess the effectiveness of repairs, and optimize maintenance strategies.

### Number of Preventative Maintenance (PM) Tasks Completed on Time

Enter a number...

### Summary of Recurring Failure Modes

Write something...

### Date of Last Major Overhaul

Enter date...

### Mean Time Between Failures (MTBF) – Current Value

Enter a number...

### Number of Unexpected Breakdowns in the Past 12 Months

Enter a number...

### Detailed Description of Most Recent Significant Repair

Write something...

### Root Cause Analysis (RCA) Documentation Available?

- ☐ Yes
- ☐ No
- ☐ Partially Available

### Upload Maintenance Records/Logs (Optional)

 Upload File

## Corrective Action Effectiveness

Evaluates the impact of corrective actions taken on equipment health and EHI scores, to improve future maintenance activities.

### Pre-Corrective Action EHI Score

Enter a number...

### Post-Corrective Action EHI Score

Enter a number...

### Corrective Action Category

- ☐ Mechanical
- ☐ Electrical
- ☐ Process
- ☐ Lubrication
- ☐ Software/Control System

### Description of Corrective Action Taken

Write something...

### Root Cause Identified (Initial Assessment)

- ☐ Wear
- ☐ Misalignment
- ☐ Contamination
- ☐ Design Flaw
- ☐ Operator Error
- ☐ Other

### Root Cause Verification Method

- ☐ Visual Inspection
- ☐ Vibration Analysis
- ☐ Oil Analysis
- ☐ Thermography
- ☐ Ultrasonic Testing

### Description of Actual Root Cause (If Different)

Write something...

### Was the Corrective Action Effective?

- ☐ Yes
- ☐ No
- ☐ Partially

### Explanation for Effectiveness Rating (If Partially or No)

Write something...



**Date of Follow-Up Review**

Enter date...