CONCEPT

Maintenance Audit and Benchmarking: Maturity Scoring, KPIs and Improvement Roadmap

12 – 16 April 2027
Paris - Right Bank business hotel



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Introduction:

Maintenance departments often report acceptable figures while hidden weaknesses persist: unclear accountabilities, informal work control, uncounted spares, unreliable system records, contractor scopes nobody verifies and indicators that cannot be compared with peers. Senior managers then fund improvements without evidence of where the real gaps lie. This Core Concept course trains maintenance managers, reliability leads and internal auditors to plan and conduct a maintenance audit, score findings against a maturity scale, benchmark indicators and turn gaps into a costed improvement roadmap. Participants produce a Maintenance Audit Report and Improvement Roadmap.

Course Objectives:

- Design a maintenance audit protocol with assessment elements, questions, evidence requirements and weighted maturity scoring
- Conduct audit fieldwork through structured interviews, document review, CMMS record sampling and site observation, and record defensible findings
- Score a maintenance function against a maturity scale and moderate scores consistently across an audit team
- Select and normalise indicators from EN 15341 and SMRP Best Practice Metrics to benchmark maintenance performance internally and against peers
- Prioritise audit gaps by business impact and effort and build a costed improvement roadmap supported by a business case
- Set up re-audit cycles and governance reviews that sustain improvement after the audit closes

Target Audience:

- Maintenance managers accountable for the performance and budget of a maintenance function
- Reliability and asset management leads responsible for improvement programmes across sites
- Internal auditors and assurance staff assigned to review engineering and maintenance operations
- Operational excellence and continuous improvement teams responsible for maturity assessments
- Engineering managers who oversee maintenance contractors and service agreements

Course Outline:

Day 1: Maintenance Audit Purpose, Maturity Concepts and Current-State Diagnosis

- Maintenance Audit Types: Compliance Review, Best-Practice Assessment and Benchmarking Study
- Maintenance Maturity Scales: Reactive, Planned, Proactive and Excellence Stages
- Audit Triggers: Rising Cost, Recurring Failures, Site Integration and Contract Renewal
- Stakeholder Map and Sponsor Agreement on Audit Scope, Access and Confidentiality
- Rapid Current-State Diagnosis With a Maintenance Health Questionnaire

Day 2: Audit Protocol Design, Assessment Elements and Reference Indicator Sets

- Audit Protocol Structure: Elements, Questions, Evidence Requirements and Weighting
- Assessment Elements: Organisation, Work Control, Materials, Information Systems, Reliability, People, Contractors and HSE
- Scoring Rubrics With Behavioural Anchors for Each Maturity Level
- EN 15341:2019+A1:2022 Maintenance Key Performance Indicators as a Reference Set
- SMRP Best Practice Metrics and Body of Knowledge Pillars as a Reference Set

Day 3: Audit Fieldwork, Evidence Gathering and Maturity Scoring

- Audit Plan, Interview Schedule and Document Request List
- Structured Interviews With Managers, Planners, Technicians and Storekeepers
- CMMS Record Sampling: Completion Quality, Failure History and Asset Register Accuracy
- Site Observation Walkthrough: Workshops, Stores, Permit Boards and Equipment Condition
- Evidence Triangulation, Scoring Moderation and the Findings Log

Day 4: Benchmarking, Gap Analysis and Audit Pitfalls

- Internal and External Benchmarking: Peer Selection and Normalisation of Indicator Definitions
- Maintenance Cost Relative to Replacement Asset Value and Cost Structure Comparison
- Gap Analysis Matrix: Maturity Score, Business Impact and Effort to Close
- Auditor Bias, Sampling Error and Gamed Indicators: Detection and Controls
- Grouping Findings by Root Cause With Affinity Diagrams and Pareto Analysis

Day 5: Case Practice: Maintenance Audit Report and Improvement Roadmap

- Case: Scoring an Industrial Plant Maintenance Function From an Evidence Pack
- Case: Facilities Maintenance Contractor Performance Review
- Improvement Roadmap Build: Quick Wins, Medium-Term Projects and Capability Building
- Business Case Build: Cost, Benefit, Payback and Risk Reduction for Priority Initiatives
- Re-Audit Cycle, Governance Reviews and Audit Report Presentation

Skills You Will Gain:

- Maintenance Audit Protocol Design
- Maturity Scoring and Moderation
- Audit Interviewing
- CMMS Data Sampling
- Maintenance Benchmarking
- Gap Prioritisation
- Improvement Roadmapping
- Business Case Development

Why Attend This Course:

- Return with a Maintenance Audit Report and Improvement Roadmap tested on realistic case evidence
- Give senior managers an evidence-based picture of maintenance maturity instead of opinion
- Compare indicators with peers on consistent definitions so that benchmarking gaps reflect real differences
- Exchange audit practice with maintenance and assurance peers from oil and gas, utilities, manufacturing and facilities management

Conclusion:

A maintenance audit is only useful when its protocol is clear, its evidence is sound and its findings lead to funded action. The course moves from audit purpose and maturity scales, through protocol design and reference indicator sets, to fieldwork, evidence gathering and scoring, then benchmarking, gap analysis and the pitfalls that distort results. The final day applies the method to case evidence and produces a Maintenance Audit Report and Improvement Roadmap with a business case and a re-audit cycle.