COURSE BROCHURE

Maintenance KPIs and Performance Measurement

An applied course teaching maintenance leaders to choose the right KPIs, calculate them from CMMS data and build a dashboard that links reliability, cost and work management to improvement decisions.

Code	HT-OGE-150
Category	Oil & Gas, Engineering & Maintenance
Duration	1 week
Level	Intermediate

Introduction

Many maintenance departments issue monthly reports full of numbers while nothing changes in the field, because the indicators were never chosen to answer a specific question or the data behind them cannot be trusted. Useful measurement starts with the decision to be supported, followed by a small set of indicators that show where time and money are being lost.

Objectives

- Link maintenance objectives to facility goals and translate them into leading and lagging indicators
- Calculate reliability, availability and overall equipment effectiveness from actual data
- Measure how well work is planned, scheduled and executed
- Analyze maintenance cost and stores performance and compare them fairly
- Design a KPI dashboard and review routine that turns numbers into actions

Who should attend

- Maintenance managers and engineers
- Planning and reliability engineers
- Maintenance supervisors and CMMS administrators
- Asset management and corporate performance staff

Skills you will develop

- Defining and selecting maintenance KPIs
- Analyzing work order data in Excel
- Designing performance dashboards
- Running performance reviews

Learning Outcomes

- Calculate MTBF, MTTR, availability and OEE while documenting the assumptions and limits of each
- Identify the equipment with the most failures and highest cost using Pareto analysis
- Measure schedule compliance, preventive maintenance compliance and backlog in crew-weeks
- Build an Excel dashboard with pivot tables and trend charts that refreshes from the source data

Course Outline

Day 1: Framework for Measuring Maintenance Performance

- From facility goals to maintenance objectives: the hierarchy of strategic, tactical and operational indicators
- Leading and lagging indicators, what makes a good KPI and the KPI definition sheet
- Reference definitions in EN 15341 and the SMRP metrics, and data sources in the CMMS

Day 2: Reliability and Availability Indicators

- MTBF, MTTR, failure rate and the difference between inherent, achieved and operational availability
- Overall equipment effectiveness, its components and where it does and does not suit continuous process plants
- Excel exercise calculating indicators from a failure log and finding bad actors with Pareto analysis

Day 3: Work Management Indicators

- Planned versus unplanned work, emergency work percentage and schedule break-ins
- Weekly schedule compliance, preventive maintenance compliance, estimating accuracy and backlog in crew-weeks
- Wrench time, rework and the ratio of preventive and predictive to corrective work

Day 4: Cost, Stores and Data Quality Indicators

- Maintenance cost as a share of replacement asset value and per unit of output, and budget variance
- Stores indicators: stock turns, stock-outs and service level, plus contractor and overtime ratios
- Work order data quality, failure codes and equipment taxonomy following ISO 14224

Day 5: Dashboards, Improvement and Applied Project

- Setting targets, the limits of benchmarking and preventing gaming of indicators
- Dashboard design with pivot tables and trend charts, the review meeting and action tracking
- Applied project in which each team builds a KPI dashboard from a work order file and presents the improvement opportunities it reveals

Training methodology

Short explanations followed immediately by work on data
Excel exercises on a work order file exported from a CMMS
Group discussion of real KPI reports and the definition and data problems they hide
Final project to build and present a maintenance KPI dashboard

Certification

Participants receive a Harbor Training Center certificate of attendance on completing the course.

Upcoming dates

City	Dates	Language	Fee
Istanbul	22 – 26 March 2027	AR	EUR 5,400
Dubai	5 – 9 April 2027	EN	EUR 4,800
London	12 – 16 April 2027	AR	EUR 5,800
Amsterdam	19 – 23 April 2027	EN	EUR 6,100
Online	26 – 30 April 2027	AR	EUR 2,800
Istanbul	27 September 2027 – 1 October 2027	EN	EUR 5,400
Dubai	4 – 8 October 2027	AR	EUR 4,800
London	11 – 15 October 2027	EN	EUR 5,800
Amsterdam	18 – 22 October 2027	AR	EUR 6,100
Online	25 – 29 October 2027	EN	EUR 2,800

Fees are per participant.

Contact us

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To register and for details, scan the code or visit:

https://harbor4training.com/en/courses/maintenance-kpis-performance