CONCEPT

Obsolescence Management: DMSMS Risk Assessment, Resolution Options and Lifecycle Cost



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Introduction:

Obsolescence management decides whether a plant, network or weapon system can still be repaired when a manufacturer stops making a board, a drive, a relay or a software licence. Organisations that only react when a discontinuance notice arrives pay for rushed last-time buys, emergency redesigns and extended outages. This Core Concept course gives managers a working method to baseline the installed bill of materials, monitor end-of-life signals, rank DMSMS risk, choose resolution options on cost evidence and write supplier clauses. Participants produce an Obsolescence Management Plan for a case asset base.

Course Objectives:

- Build an obsolescence baseline that links the installed bill of materials to supplier lifecycle status and asset criticality
- Set up monitoring of end-of-life signals, including supplier discontinuance notices, distributor data and in-house failure trends
- Score and rank obsolescence risk by probability of supply loss, time to impact and operational consequence
- Select and cost a resolution option for each at-risk item, from existing stock and last-time buys to alternates, emulation and redesign
- Draft obsolescence clauses for supplier and OEM contracts covering notice periods, support life and design data access
- Write an Obsolescence Management Plan with roles, review cycle and performance measures structured on IEC 62402

Target Audience:

- Maintenance managers who must keep ageing equipment repairable across its remaining service life
- Reliability and asset integrity leads who link supply loss to failure consequence and availability
- Engineering and technical authority managers who approve alternates, modifications and technology refresh
- Spares, materials and inventory managers who decide what to buy, hold or write off
- Supply chain and contracts managers who negotiate support terms with OEMs and distributors
- Programme and sustainment managers in defence and infrastructure supply chains responsible for through-life support

Course Outline:

Day 1: Obsolescence Types, DMSMS Concepts and the Installed Base

- Obsolescence Taxonomy: Component, Software, Skills, Standards and Materials Obsolescence
- DMSMS Definition and the Identification, Assessment, Analysis and Implementation Cycle
- Technical Versus Functional Obsolescence in Long-Life Plant and Infrastructure Assets
- Installed Bill of Materials Capture: Asset Hierarchy, Part Numbers and Manufacturer Codes
- Obsolescence Baseline Register and Data Quality Scoring

Day 2: Lifecycle Monitoring and Obsolescence Risk Assessment

- Component Lifecycle Stages: Introduction, Maturity, Decline, Phase-Out and Discontinued
- Product Discontinuance and End-of-Life Notice Handling Workflow
- Obsolescence Monitoring Sources: Supplier Portals, Distributor Data and Commercial Lifecycle Databases
- Obsolescence Risk Scoring Matrix: Supply Loss Likelihood, Time to Impact and Consequence
- Criticality-Based Prioritisation and the Obsolescence Watch List

Day 3: Reactive Resolution Options and Selection

- Existing Stock, Cannibalisation and Reclaimed Parts from Decommissioned Assets
- Last-Time Buy and Lifetime Buy Quantity Estimation from Demand and Failure Data
- Form-Fit-Function Alternates, Substitutes and Engineering Change Approval
- Emulation, Reverse Engineering and Aftermarket Sources with Counterfeit Screening
- Resolution Option Decision Tree and Resolution Record Template

Day 4: Proactive Strategy, Cost Modelling and Supplier Contracts

- Lifecycle Planning, Technology Refresh Windows and Design for Obsolescence with Open Architectures
- Control System, Drive and Electronics Obsolescence at Overview: Migration Triggers and Bridging Measures
- Obsolescence Cost Model: Holding Cost, Resolution Cost and Outage Cost Comparison
- Business Case for Proactive Obsolescence Funding and Net Present Value Comparison
- OEM and Supplier Contract Clauses: Notice Periods, Support Life, Escrow and Design Data Rights

Day 5: Case Study: Obsolescence Management Plan for a Case Asset Base

- Case Exercise: Baseline and Risk Ranking for a Utility Pumping and Control Asset Base
- Case Exercise: Resolution Selection for Discontinued Drives, Relays and Operator Stations
- Case Exercise: Cost Comparison of Lifetime Buy Versus Planned Technology Refresh
- Obsolescence Management Plan Structure per IEC 62402 at Overview: Policy, Roles and Review Cycle
- Obsolescence Management Plan Presentation and Peer Challenge

Skills You Will Gain:

- Obsolescence Baseline Development
- Lifecycle Status Monitoring
- Obsolescence Risk Prioritisation
- Last-Time Buy Sizing
- Alternate Part Qualification
- Obsolescence Cost Modelling
- Supplier Support Contracting
- Through-Life Support Planning

Why Attend This Course:

- Leave with an Obsolescence Management Plan structured for your own asset base and ready for management approval
- Stop paying emergency prices for discontinued parts by acting on end-of-life signals before stock runs out
- Defend obsolescence budgets with cost comparisons that finance and asset owners accept
- Compare practice with peers from process plants, utilities, defence supply chains and infrastructure operators

Conclusion:

Obsolescence cannot be prevented, but its cost and downtime can be controlled when the installed base is known, supply signals are watched and decisions are taken early. The one week move from obsolescence types and the baseline register through lifecycle monitoring and risk ranking to reactive resolution options, proactive strategy, cost models and supplier clauses. The final day applies the method to a case asset base and produces an Obsolescence Management Plan that each participant can adapt for their organisation.