ROS & RCM – Reliability of Supply & Reliability Centered Maintenance

MEERIM VISIONARY TRAINING (FZE)
INSPIRING AMBITION AND SUCCESS

Training Program

5 DAYS

IN-HOUSE TRAINING AT AQWA POWER PREMISES

Program Overview:

This intensive five-day instructor-led program is designed specifically for power generation environments where asset reliability, plant availability, and supply continuity are critical to operational and commercial performance.

For a facility such as an ACWA Power plant operated by NOMAC, maintaining high availability while minimizing forced outages and supply disruptions is not optional — it is strategic. This program equips technical and management teams with structured methodologies to strengthen Reliability of Supply (ROS) and implement Reliability Centered Maintenance (RCM) effectively.

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TECHNICAL PROPOSAL

ROS & RCM – RELIABILITY OF SUPPLY & RELIABILITY CENTERED MAINTENANCE

Training Audience:

- Plant Managers
- Maintenance Managers
- Reliability Engineers
- Planning & Scheduling Engineers
- Operations Supervisors
- Supply Chain & Spare Parts Coordinators
- Asset Management Professionals

Key Outcomes:

- Reduced forced outages
- Improved plant availability and capacity factor
- Structured elimination of reactive maintenance
- Improved spare parts optimization
- Stronger cross-functional coordination
- Measurable improvement in reliability KPIs
- Risk-based decision-making culture

Training Objectives:

- Understand core reliability engineering principles in power plant operations
- Identify supply chain and asset vulnerabilities impacting generation reliability
- Apply RCM methodology to critical plant systems
- Develop risk-based maintenance strategies
- Improve maintenance planning and asset prioritization
- Align maintenance, operations, and supply chain functions
- Establish measurable reliability performance indicators

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KEY OUTCOMES

Organizational Benefits:

- Reduced forced outages
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- Measurable improvement in reliability KPIs
- Risk-based decision-making culture

Training Methodology:

- Instructor-led interactive sessions
- Real power plant case studies
- Hands-on RCM workshops
- Group discussions & scenario analysis
- Practical templates and tools
- Pre- and post-training assessments
- Attendance and completion certificates
- Final assessment report and feedback summary
- Post-training evaluation and recommendations

Personal Benefits:

- Clear understanding of RCM methodology
- Stronger analytical and risk-based thinking
- Ability to conduct asset criticality analysis
- Practical tools to improve maintenance strategy
- Increased professional credibility in reliability engineering

Why This Program Is Strategic :

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Reliability of Supply (ROS) and Reliability Centered Maintenance (RCM)

Training Modules:

Day One: Introduction to Reliability Engineering

- Reliability fundamentals in thermal / power generation plants
- Failure patterns in rotating and critical assets
- MTBF, MTTR, Availability, and Reliability KPIs
- International reliability benchmarks
- Linking reliability to plant profitability and performance contracts

Day Two: Reliability of Supply (ROS)

- Identifying supply chain risks in power plant operations
- Critical spares strategy for turbines, generators, and balance-of-plant
- Vendor reliability evaluation
- Mitigating forced outages due to supply disruption
- Case studies of supply chain failures in the energy sector
- Building resilience through risk mapping

Day Three: Reliability Centered Maintenance (RCM)

- RCM principles and structured methodology
- Identifying critical assets in power generation systems
- Functional failures and failure modes analysis
- Selecting optimal maintenance tasks
- Condition-based vs time-based strategies
- Eliminating reactive maintenance

Day Four: Implementation & Optimization

- Integrating RCM into CMMS systems
- Criticality analysis for power plant equipment
- “Bad actor” identification and prioritization
- Maintenance strategy optimization
- Performance monitoring dashboards
- Sustaining reliability improvements

Day Five: Practical Application & Workshops

- Group-based RCM analysis on selected plant equipment
- Criticality ranking exercises
- Supply risk mapping workshop
- Maintenance strategy redesign case study
- Facilitated discussions between maintenance & operations teams

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TALK TO US

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