Centre For Industrial Solutions and Advanced Training
A Global Training Service Provider
An ISO 9001:2015 Certified
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2 days Highly Interactive workshop on

"Optimizing Maintenance Decisions"

Equipment and Replacement

6-7 Dec 2018, at Ahmedabad.

Introduction:

Major world companies have developed their maintenance practices based on the optimisation of predictive maintenance management system. This approach works well for both stationary and rotating equipment and includes continuous condition monitoring and the detailed inspection of vital elements of the equipment. The optimisation of the maintenance activities includes the spare parts handling, the selection of the right size and skill of maintenance crew with consideration of potential outsourcing i.e. subcontracting. Based on the collected data on reliability of the equipment in operation, Maintenance department can complete the Fitness for Service analysis based on which the decision can be made about 3Rs: Run, Repair or Replace, for the particular component of the equipment. Final decision regarding equipment replacement depends very much on the economic and safety aspect that must be taken into consideration. This training seminar is intended to introduce the participant to the process of making decisions regarding equipment maintenance optimisation including equipment replacement. Various optimisation techniques will be presented and the optimisation criteria explained. The seminar will include several workshops with case studies and real world problems to be solved.

This will enable all participants to actively take part in the team work and classroom discussions.

The training seminar will feature:

- Main types of equipment failure mechanisms
- Maintenance methodologies and economic aspects
- Spare parts handling and storage modeling
- Risk assessment and management
- Equipment inspection and fitness for service analysis

Objectives: By the end of this training seminar, the participants will be able to:

1. Identify equipment failures, and the impact on plant reliability
2. Understand the cost-effectiveness of Preventive/Predictive Maintenance program
3. Apply techniques of optimisation of various maintenance activities
4. Define criteria for work-crew size, spare parts and equipment replacement
5. Make the important decision on the basis of the cost and benefit analysis
6. Incorporate safety objectives to the equipment repair or replacement optimization

Training Methodology:

This training seminar will be conducted along workshop principles with formal lectures and interactive examples, which will result in the active participation of all delegates in discussions and teamwork of problem solving. There will be several class-workshops during which case studies and real life problems will be solved in team work. This will provide understanding of the problems and illustrate the efficient application of modern maintenance optimisation technologies. There will be ample opportunities for active, open discussions and sharing professional experiences on various industrial applications.

Organisational Impact:

On completion of this seminar the delegates will be able to analyze the operation and maintenance of various stationary and rotating equipment installed within the organization and suggest potential improvement in maintenance procedure where required.

The knowledge gained in this seminar will:

1. Enable the delegates to optimize the O&M of various equipment
2. Give the delegates skill to analyze efficiency of equipment maintenance techniques
3. Enable measures to optimize maintenance for the given application
4. Give better insight to the safety of equipment maintenance and replacement decisions

Personal Impact

1. Improved confidence when solving problems of maintenance of various equipment
2. Better understanding of how optimized maintenance impacts equipment reliability
3. Better knowledge of equipment instrumentation regarding failure prevention

4. Improved personal skills of analysis of spare part handling and optimization
5. Better ability to troubleshoot difficult situations

Who Should Attend? This training seminar is suitable to a wide range of professionals but will greatly benefit:

1. Operation, technical production & service professionals
2. Technical professionals responsible for maintenance and repair of equipment
3. Professionals involved in inspection and reliability
4. Technical professionals dealing with risk assessment and integrity analysis
5. Technicians dealing with regulating and metering and other measurements

Workshop Content:

1. **Physical Asset Management & Failure Analysis:**
    - Physical Asset Management
    - Maintenance Management: Preventive / Predictive Approach
    - Nature and Modes of Equipment Failure
    - Failure Modes & Effect Analysis (FMEA)
    - Analysis of Component Failure data, Censored Data, Weibull Distribution

2. **Preventive Maintenance & Spare Parts Replacements**
    - Reliability and Availability Concept: MTBF & MTTR
    - Reliability Improvement through Reduction of Downtime
    - Maintenance Performance Quantification
    - Preventive Maintenance & Spare Part Handling
    - Spare Parts Provisioning: Prediction Models and Techniques
    - Management of Change: In-Kind Spare Parts

3. **Equipment Inspection & Fitness for Service**
    - Condition Monitoring & Inspection
    - Risk Based Inspection (RBI)
    - Risk Matrix: Management and Mitigation Measures

- Reliability Improvement through Inspection Economics of Maintenance
- Repair & Replacement
- Management of Maintenance Resources
- Effective Use of CMMS
- Maintenance Organization Analysis: Crew size
- Equipment Repair or Replacement Decision
- Economic Aspect of Maintenance Outsourcing: Subcontract
- Economic Aspect of Equipment Replacement

4. **Total Productive Maintenance & Safety**
    - Capital Investment in Equipment andMaintenance: ROI
    - Total Productive Maintenance
    - Safety in Maintenance Work
    - KPI and OEE: Leading and Lagging Indicators
    - Summary and Conclusions
5. **Case Studies @ Group exercises to understand the concepts and implement back at work.**
    - Inspection Scope & Frequency
    - Fitness for Service Analysis (FFS)

Certification: **Every successful participant will be awarded a course completion certificate.**

Registration:

Dates of the program: **6-7 Dec 2018 at Ahmedabad.**

Participation fees: INR 24500/- per delegate (Excluding GST@18%; Workshop includes training material soft/hard copies, Tea, Lunch & snack, excluding lodging and Boarding)

Payment: ECS/NEFT/DD in favor of "Centre for Industrial Solutions and Advanced Training" Payable at Nagpur, Maharashtra, India. Account No: 0509102000003353 Bank: IDBI, Wardha- 442001, MS, India; IFSC Code: IBKL0000509; Swift Code IBKLINBBNGP; MICR Code 442259001. (GST Code:27ABBPW5589J1ZV; SAC Code 99-9293; State Code 27)

Venue: Ahmedabad

We do prefer on line Registration through our web www.cisat.co.in.

For Registration please do send nominations details to email,

1. Vikas +91-8669546332; 7709012815; vikas@cisat.co.in; cisat.nagpur@gmail.com;

Contact for any In-house Training requirement at your plant or location.

With Best Regards and Thanks,

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