TRAINING PROGRAM

PdM Solution. Co., Ltd. conducts the classes with very experience engineer from in and outside area. We have been working about Predictive Maintenance over 30 years which prompt to clarify theory and practical including experience that can transfer to you all.

The classes that we offered are as follow:

COURSES	DURATION
1. Basic Vibration and Predictive Maintenance	3
2. Machine Symptom Analysis	2
3. Vibration Instrument Calibration Techniques	2
4. Rotating part Balancing *	2
5. Machine shaft Alignment *	3
6. CBM (Condition Base Maintenance)	1
7. Motor Operation & Motor Current Analysis	2

* Balancing and Alignment are not over 12 pax. (Limitation of simulators), other classes are unlimited.

Customer prepared: Location with Overhead Projector or LCD and white board.

Transportation and accommodation: charge as actual

The people match to individual class is as follow:

1. Maintenance Manager
2. Production Manager
3. Maintenance Engineers
4. Mechanical Engineers
5. Electronic and Instrumentation Engineers
6. Electrical Engineers
7. Vibration Technician
8. Mechanic
9. Electronic and Instrumentation Technician
10. Electrician
11. Production Operator

What you will gain from individual course

(1) BASIC VIBRATION AND PREDICTIVE MAINTENANCE

The person who attends this COURSE will know how important of understanding about VIBRATION such as:

- The unit to use and international standard,
- Equipment or tools for individual VIBRATION measurement.
- How individual tools work?
- What VIBRATION level which can harmful to the machines?
- What VIBRATION signature looks like?
- Understand Procedure and how to measure.
- Know how to select the right tools and familiar with VIBRATION TERMINOLOGY

The person who should attend Course Basic Vibration and Predictive Maintenance are group 1,2,3,4,5,6,7,8,9,10,11

(2) MACHINE SYMPTOM ANALYSIS

The details of the course will notice the way to identify the fault of the machine from vibration signatures. Understand how to measure and set up hypothesis to find the root cause of the machines' fault by using the data from measuring. In additional the analysis from VIBRATION SPECTRUM to find the root cause of VIBRATION to the machine. Suggest corrective action and consolidate all data, evaluate operating condition of the machines.

The person who should attend Course Vibration Analysis and Diagnosis are group 1,3,4,7,8

(3) VIBRATION'S INSTRUMENT AND CALIBRATION TECHNIQUES

The person who attends this COURSE will know how to SIMULATE SIGNAL match to all measuring types and know how to compare the reading from MONITOR with standard measuring tools that you are using. Can troubleshooting and identify the fault of general meter or permanent monitoring system installed.

The person who should attend Vibration's Instrument Calibration Techniques are: group 1,3,5,7,9

(4) Rotating part BALANCING

The person who attends this COURSE will know how to identify the types of UNBALANCE in the rotating machines and know how difference of them. They can make decision for the way to correct individual unbalance. Also select the proper way to use varies procedure to balance.

The person who should attend Course Balancing are: group 3,4,7,8

(5) Machine Shaft ALIGNMENT

The person who attends this COURSE will save time for performing ALIGNMENT. The result will be very accurate from analysis the types of misalignment.

Attendee will identify the types of MISALIGNMENT and the way to solve the individual type of the problem. Know the procedure to perform and correct the difference type of MISALIGNMENT for the accurate end result and fast. Know the way to perform alignment when normal condition could not apply.

The person who attends this COURSE alignment are: 3,4,8

(6) CBM

The person who attends this course can identify the way to check the fault of the machines with varies types of measuring tools such as: PdMA (motor current analysis), Vibration, IR Thermal graphic, Ultrasonic, NDT and etc.

(7) MCA (motor current analysis) or PdMA

The person who attends this course can analyze the problem about Motor, Generator,

Benefit from Attending Motor Current Analysis Course

1. Reduce investment, repair cost, spare parts, down time and manpower
2. Know the problem of the motor in all factors as below:

Fault Zone Analysis

- Power Quality
- Power Circuit
- Insulation System
- Stator
- Air Gap
- Rotor

3. Be able to analyze the motor symptom from the data below correctly.
    - AC Standard Test (Offline)
        - Resistance to Ground (RTG)
        - Capacitance to Ground (CTG)
        - Phase to Phase Resistance Imbalance (%BR= Balance Resistance Percentage)/Phase to Phase Inductance Imbalance (%BI= Balance Inductance Percentage)

- Rotor Influence Check (RIC) and Analysis
- Low Influence Rotor (LIR)
- Power Analysis < 600 VAC , > 600 VAC
- Benefits of On-Line Testing
  - Current Analysis
  - In-Rush/Start-Up
  - High/Low Resolution (MCSA= Motor Current signature Analysis)
  - Eccentricity of Rotor/Stator Capturing Power Analysis Signals
  - Verifying Proper Rotation
- Results Page
  - Effects of Imbalanced Voltage and Currents
  - NEMA De-Rating
  - Harmonics
  - Linear Loads/Non-Linear Loads
  - Harmonic Voltage Factor (HVF)/ De-rating
  - Testing a typical AC motor
  - Testing Data Analysis/Detailed

4. Be able to read the report of motor current analysis result correctly.
5. Be able to bring the suggestion guideline for corrective action properly.

Thanks for calling our service.

Mr.Chienchai Suwanchote
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More information, please contact

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