

# COURSE DESCRIPTION

Crane Nuclear offers to provide the services as described in this Technical Description subject to the pricing, terms and conditions delineated in the Commercial Description.



## MOV Frequency Domain Analysis Training Course

**Standard Class Size:**

6 Students per Instructor

**Maximum Class Size:**

8 Students

**Course Duration:**

3 days

**Prerequisite:**

UDS Data Acquisition Training Course or the stand alone MC<sup>2</sup> System Data Acquisition and Analysis Training Course, and a working knowledge of Limitorque actuators

**Supplied Materials:**

Training manual for each student

**Suggested Training Aides:**

Three (3) laptops equipped with Crane Nuclear signature software

**Course Description:**

The MOV Frequency Domain Analysis Training Course was designed to instruct students who have previously been trained in MC<sup>2</sup> System Data Acquisition and Analysis. This course shall instruct students in Actuator Frequency Identification, Frequency Domain Characteristics, FFT Tracking and Trending, and Repeatability of Acquisition/Analysis Techniques.

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## Course Terminal Objectives:

Upon successful completion of this training course, the student will:

- Select the proper data range and perform FFT analysis of MOV motor current data.
- Calculate/predict fundamental frequencies present in MOV frequency spectrum.
- Evaluate changes in MOV frequency domain data by using the various analysis tools provided and understand the methods necessary to track and trend frequency domain data over time.

## Course Enabling Objectives:

After completing this course, the student will:

- Upon successful completion of the course, the student will have an understanding of the history behind Fast Fourier Transform Analysis and be able to relate the application to MOVs.
- The student will be able to find and recognize changes in frequency domain data that reveal concerns, which may affect MOV operability.
- The student will understand and practice the importance of repeatability of acquisition and analysis techniques as they apply to tracking and trending frequency domain data over time.

## Course Benefits:

- Increase the plant's self-sufficiency in MOV MC<sup>2</sup> testing.
- Reduce the plant's cost of MOV diagnostic testing.
- Reduce the impact of MOV testing on the outage schedule.