

Machinery Vibration Incorporated provides Engineering Services to a broad range of industries. We supply Practical Engineering Solutions to improve performance and boost production.

Machinery Vibration Inc. (MVI) is a small group of engineering specialists focused on troubleshooting rotating machinery, fluid delivery systems, and mechanical component failures.

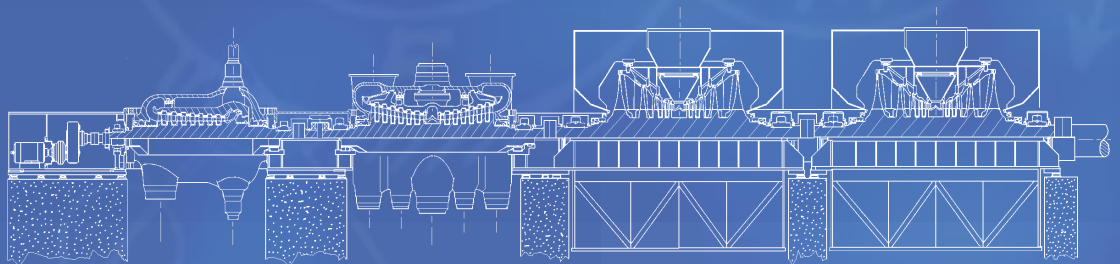
A valuable off-shoot of this troubleshooting work is MVI's **on-site short courses** that incorporate MVI's highly successful troubleshooting methods, experience and numerous case studies.

SHORT COURSE

Turbine Steam Path Damage

Turbine Steam Path Damage stems directly from MVI's extensive experience with solving difficult turbine problems for both Nuclear and Fossil generation facilities.

This course covers a wide range of topics in detail, and the course material has been selected to help plant engineers better understand everything from basic turbine operating principals to measurement and damage assessment methods.



COURSE CONTENT

Day 1 :

Steam Turbine Basics

- Power plant steam cycles
- Turbine design and construction
- Turbine blades (function, material, stresses and vibration, flow analysis)

Life Assessment Factors

- Component life assessments
- Turbine steam chemistry
- Turbine condensation impurities
- Metallurgical and chemical qualification testing

Day 2 :

Monitoring, Diagnostics, Inspection

- Introduction, function, instrumentation
- Performance testing and degradation diagnostics
- Vibration and severity guidelines
- Inspection and NDE

Damage Assessments

- Damage prevention and correction
- Damage control
- Turbine repairs and methods

Day 3 :

Turbine Damage and Wear

- Turbine blade attachment creep
- General creep and other high temperature turbine damage
- Particle erosion
- Crud and other deposits
- Blade material fatigue
- Pitting and stress corrosion fatigue
- Fretting wear
- Windage overheating
- Manufacturing and installation defects

MVi

Based in Cleveland, Ohio, the core of MVI's technical staff includes **Dr. Maurice L. Adams, Jr.** and **Dr. Michael L. Adams.**

Contact MVI via email at: mla5@mvibe.com

For more information on our other services and courses, please visit our website at:

www.mvibe.com