



(W) STEAM TURBINE VALVE MAINTENANCE (TG314)

Improve the effectiveness of your steam turbine valve maintenance activities on Westinghouse designed steam turbines.

REDUCE: Outage Durations, Outage Extensions, Work Duplication, and Rework.

INCREASE: Outage Intervals, Reliability, Availability, and Productivity.

Greater unit reliability and availability can be achieved through proper routine valve maintenance activity. Quality valve maintenance outages are the result of thorough job planning and a complete understanding of the equipment, specifications, and procedures.

This course has been designed for steam turbine facility foremen, supervisors, mechanics, engineers, and all plant personnel who are concerned with increasing the effectiveness and reducing the cost of steam turbine valve maintenance outages. HPC is prepared to instruct this course as developed by equipment-experienced instructors that offer a broad range of practical experience on numerous types and sizes of steam turbine-generators.

OBJECTIVES

Upon completion of this course, participants will be able to:

1. Identify safety precautions that must be adhered to during a turbine steam valve inspection and repair outage.
2. Describe the various inspections performed during disassembly of turbine steam valves.
3. Describe the procedures for cleaning and inspecting the turbine steam valve components.
4. Describe the impact of the various types of defects on turbine efficiency and reliability.
5. Describe the criteria used to evaluate turbine steam valve component defects.
6. Describe the various repair methods for defective steam valve component conditions.

COURSE OUTLINE

- I. **Introduction:** Function of Valve, Main Steam Valve Arrangement and Terminology, Safety Precautions
- II. **Steam Valve Disassembly:** Throttle Valves, Governor Valves, Reheat Stop Valves, Interceptor Valves
- III. **Steam Valve Cleaning:** Grit Blast Cleaning, Stoning, Wire Brushing, Strap Lapping, Honing
- IV. **Steam Valve Inspection:** Valve Discs, Valve Seats, Contact Checks, Stems, Crosshead Guide and Bushings, Steam Strainers, Linkages, Valve Closing Springs, Valve Studs and Bolts, Valve Body
- V. **Steam Valve Reassembly:** Procedures, Valve Stud Tightening
- VI. **Inspection and Report Forms**
- VII. **Course Conclusion**

COURSE DATES/LOCATION/FEE

Course is scheduled on-site as needed. Subject is included in HPC's Steam Turbine Generator Maintenance course, TG301.

WHAT YOU WILL RECEIVE

1. 1 copy of HPC Technical Services' textbook, (W) Steam Turbine Valve Maintenance.
2. A Certificate of Completion

FREQUENTLY ASKED QUESTIONS

- Will HPC Technical Services bring this course to our location for our personnel only? YES, call or email Stephen Parker, Stephen@TurbineGeneratorTraining.com for a price quotation.
- Will HPC Technical Services customize the presentation at our site to suit our particular needs? Yes.
- Is HPC Technical Services' textbook available for purchase as a reference document? No, however, HPC's full color illustrated Steam Turbine Generator Maintenance text is available for \$219 plus shipping & handling.
- What is the cost for HPC Technical Service to deliver this course at our location? Well, of course that can vary and it needs to be priced on an individual need basis. You gain from the customization and price.
- Is HPC Technical Services' consultants available for "technical advise" during our upcoming outage? Yes. Call Stephen Parker, Stephen@TurbineGeneratorTraining.com for a rate sheet.