

# 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.



## AOV Actuator / Instrument Maintenance and Repair

**Standard Class Size:**

6 Students per Instructor

**Maximum Class Size:**

8 Students

**Course Duration:**

5 days

**Prerequisite:**

Basic knowledge of control loops, pneumatic actuators and associated instrumentation.

**Supplied Materials:**

A training manual for each student.

**Suggested Training Aides:**

Various actuators, instruments and accessories.

**Suggested Attendees:**

Plant instrument and control technicians, electricians and their foreman, engineering, QC and operations personnel.

**Course Description:**

This course is structured around typical maintenance, repair, and troubleshooting of various types of actuators, associated instruments and accessories used in the modern power generation industry. All major components and their function will be discussed. The student will perform functional testing, disassemble/assemble and calibrate positioners in the lab portion in order to pass the course.

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## Course Terminal Objectives:

Each student will be required to pass a written test with a minimum score of 80% in order to successfully complete this course. Upon successful completion of this training course, the student will:

- Be familiar with control loops.
- Understand the basic operation and maintenance of actuators.
- Be proficient with instrument maintenance and set up.
- Demonstrate setup and calibration and accessory set up.
- Understand tubing for maintenance and repair.

## Course Enabling Objectives:

After completing this course, the student will:

- Describe a basic control loop.
- Identify major components of actuators.
- Explain the operation of various actuators.
- Perform assembly/disassembly and troubleshooting of various actuators.
- Perform benchset of an actuator.
- Understand coupling an actuator to valve.
- Identify major components of various instruments, electronic and pneumatic.
- Explain the operation of various instruments electronic and pneumatic.
- Perform assembly/disassembly and troubleshooting of various instruments.
- Execute calibration procedures on electronic and pneumatic instruments (i.e. positioners, I/Ps, etc.).
- Describe proper tubing routing and application.

## Course Benefits:

- Increase the plant's self-sufficiency in AOV maintenance.
- Increase the reliability of the plant's AOVs. Reduce the plant's cost of AOV maintenance.
- Reduce the plant's cost of AOV maintenance.