



DESCRIPTION

**Class "D"
9-70120**

VALVE **A**CTUATOR **S**AFETY **T**RAINING COURSE

Maximum Class Size:	20 Students per Instructor
Course Duration:	3-4 Hours
Prerequisite:	None
Supplied Materials:	Training Handouts for Each Student
Training Aids:	Valve Actuator Safety Training Course Handout, Poster Board Illustrations
Suggested Attendees:	Plant Electricians, Mechanics, Electrical and Mechanical Foreman, Engineering and Operations Personnel

Course Description: This 3-4 hour course will provide students with instruction in basic Operation and Construction of various types of valve actuators. Discussions will include motor and manual modes, design safety features, and proper methods of verifying proper operation. Examples of potential or actual safety related events will be provided.

All participants will be encouraged to participate in group discussions which will include a review of potential failure modes including, but not limited to, the following:

- Manual override of motor starter contacts
- Use of a cheater bar
- Improper torque / limit switch settings
- Jumper installation around control switches
- Mechanical persuasion
- Motor, gearing, and/or springpack changes
- Reverse motor rotation
- Maintenance without proper mechanical or electrical isolation
- Springpack hydraulic lock
- Use of improper fasteners

Terminal Course Objectives: Upon successful course completion, the student will be familiar with:

- Proper actuator operation procedures including potential consequences of improper operation
- Effects of improper maintenance techniques as related to operational safety
- Effects of failure to perform periodic maintenance checks as related to operational safety
- Equipment upgrades to minimize the possibility of over torque / thrust of the valve and actuator assembly
- Perform troubleshooting of both mechanical and electrical problems on malfunctioning Actuators.

Course Benefits:

- Increased plant personnel awareness of possible consequences of improper valve operating techniques on personnel safety and plant reliability.
- Increased knowledge of valve actuator operation and construction promoting an understanding of the necessity for proper operation and maintenance to enhance plant safety.