# Pelton Mechanical Cabinet Actuator Focus Workshop

## **Intensive Hands-On Factory Training**



In response to customer requests for smaller factory training classes that concentrate on a single governor type, Emerson offers a workshop focused on the Pelton mechanical cabinet actuator. Whether you are an experienced governor mechanic or an apprentice technician, this two-day intensive workshop will enhance your knowledge of this governor type.

Focus workshops, featuring more hands-on time and less classroom time, are ideal for governor technicians who are responsible for tuning, adjusting and troubleshooting governors.

Over the years we have provided technical support to many Pelton governor users in the form of technical guidance, field service, factory repairs and training classes. We have an extensive inventory of reconditioned parts on hand and are expanding our line of new replacement parts for various types of Pelton mechanical governors, including the Model B cabinet actuator that is the subject of this class. With our pressurized Pelton actuator system, we can provide factory training to your maintenance crews so they can keep your units running efficiently and reliably for many years to come.

Intensive troubleshooting sessions, combined with smaller class size, are what make focus workshops so effective as a training tool for your maintenance crew.

#### Focus workshops offer:

- Advanced training on specific governor type
- Smaller class sizes
- More hands-on time

## The Pelton mechanical cabinet actuator focus workshop provides in-depth hands-on training on the following topics:

- Flyball assembly
- Dashpot and dashpot bypass
- Pilot valve assembly
- Adjusting relay valve dither
- Restoring links and levers
- Permanent magnet generator
- Auxiliary speed switches



#### **Class Information**

Prospective attendees are encouraged to register early as this workshop is limited to 30 people. For more information or to reserve your seat, email <a href="mailto:school.ag@emerson.com">school.ag@emerson.com</a> or visit our dedicated hydro governors workshop page at <a href="mailto:Emerson.com/Hydro">Emerson.com/Hydro</a>.

The workshop is a two-day course starting Tuesday at 8 am and running through Wednesday at 5 pm. We encourage attendees to arrive the Monday prior and depart the same Thursday to maximize class time.

The workshop is held at our hydro training and repair center in Amherst, Wisconsin. Lodging and transportation are not provided: services are available in nearby Plover, Wisconsin.

### **Typical Class Outline**

- 1. Introduction to governors (governor 101)
  - A. Governor terminology
  - B. Simplified theory of operation
  - C. Dynamics of the water column and the rotating equipment
- 2. Governor operation with zero speed droop
- 3. Governor operation with speed droop
- 4. Governor operation connected to the grid
- 5. Governor theory
- 6. Governor maintenance
- 7. Governor calibration
- 8. Troubleshooting techniques
- 9. Governor oil pressure systems
  - A. Pumps
  - B. Pump pilot valve
  - C. Pump unloader and safety
  - D. Pump lead/lag operation
  - E. Pressure tanks (air over oil) and float valve
  - F. Calculation of shutdown oil levels and pressures
  - G. Governor oil selection and cleanliness
- 10. Hands-on sessions
- 11. Question and answer sessions

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