CALIFORNIA STATE UNIVERSITY Demonstration of Pelton Turbine

COLLEGE OF ENGINEERING

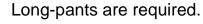
DO NOT use this equipment unless an instructor has instructed you in its safe use/operation and has given permission.



Safety glasses may be required in work areas.



Long and loose hair must be contained or constrained.





Appropriate footwear with closed-toe must be worn.



Protective gloves may be required.



Rings and jewellery must not be worn.

PRE-OPERATIONAL SAFETY CHECKS

- 1. Check workspaces and walkways to ensure no slip/trip-hazards are present.
- 2. Check that all equipment components are in position and are operational.
- 3. Ensure you are familiar with the operation of the equipment.
- 4. Keep table and work area clear of all tools and debris.
- 5. Faulty equipment must not be used. Immediately report suspect equipment.
- 6. Be aware of any other students or personnel in the immediate vicinity and ensure the area is clear before using this equipment.
- 7. Familiarize yourself with all mechanical operations, switches and controls, including potential chemicals that may be used.
- 8. If you have any questions or concerns, ask the laboratory technician or instructor first.

OPERATIONAL PROCEDURES

NO FOOD OR DRINK PERMITTED NEAR EXPERIMENTS.

- 1. Position the apparatus above the working channel of the hydraulic bench.
- 2. Connect the flexible tube of the turbine apparatus at the hydraulic bench supply connector.
- 3. Turn the switch of the bench pump and open the bench control valve fully.
- 4. Gradually open the spear valve. The turbine will be working.
- 5. Use the tachometer to find the speed of the turbine.
- 6. Apply tension in the band brake slightly to slow the rotor speed slightly. Find the new speed of the turbine.

HOUSEKEEPING

- 1. Turn off all equipment once experiment is completed and dispose of chemicals in proper receptacles on completion. Leave equipment and working area in a safe, clean and tidy state.
- 2. Keep all walkways and aisles free of clutter and debris.

| DOTENTIAL MAZADO | |
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Date of last review

| Chemical exposure | on skin | Noise | Eye injuries |
|-------------------|---------|-------------|--------------|
| Electrical shock | Manua | al handling | Broken glass |

Signature _

Reviewed: February 2015. www.csulb.edu/colleges/coe