

BUREAU OF RECLAMATION
FACILITIES INSTRUCTIONS, STANDARDS & TECHNIQUES
Volume 5-8

**SAFETY PROCEDURES FOR HIGH
VOLTAGE TESTING**

Safety Procedures for High-voltage Testing

High voltage testing mishaps can result in serious injury or death. Careful planning and adequate safety procedures can help prevent injury both to personnel performing tests and to others who might otherwise inadvertently come into contact with equipment under test. The following safety procedures should be followed for all high-voltage testing performed by Reclamation personnel:

1. Only qualified, trained personnel should conduct tests. On-the-job high-voltage-test training should not be performed unless under the supervision of an experienced professional.
2. A hazard analysis of the test to be performed should be made in accordance with Appendix A of the Reclamation Operation and Maintenance Safety Standards.
3. A thorough inspection of the test site and the equipment to be tested must be performed prior to testing to identify areas where access should be restricted during testing, and to identify any accessory equipment which must be disconnected

during testing. Warning signs should be posted or sentries assigned to restrict access, and a check should be made to determine that the accessory equipment to be excluded from the test is disconnected.

4. The area around the test unit should be roped off and only authorized personnel allowed within these limits.

5. Upon completion of the test, the equipment must be grounded in accordance with the procedures described in [FIST Volume 3-1](#), or the applicable IEEE testing standards and the ground should be maintained long enough to assure that the accumulated charges have drained sufficiently to permit reconnecting work on the equipment to proceed safely.

Training in high-voltage-testing techniques may be obtained from the Denver Office, Research and Laboratory Services Division, Electric Power Branch, Code D-3770. Requests for this training should be directed to the Program Services Division, Project Operation Services Staff, Code D-5140, Denver Office, for coordination.