



This training session was developed to assist water and wastewater utilities to better respond to emergency situations and to provide information on the selection, installation and operation of generators. Being prepared for that inevitable emergency will make recovery much less stressful – for utilities and their customers.

The Kansas Rural Water Association

Presents:

Specialized Training Session

Generators, Grounding, Power Quality and Lightning Protection

Three locations to choose from:

- February 21, Abilene
- February 22, Kingman
- February 23, Russell

TRAINING NOTICE:

The Kansas Rural Water Association is pleased to sponsor a specialized workshop entitled **Generators, Grounding, Power Quality and Lightning Protection**. This training will provide information on how to size generators and how to properly connect generators. The session also covers how to use a single phase generator to operate a three-phase motor. Issues associated with grounding issues will be discussed, including proper sizing of wire and rods, and proper grounding of a generator. Other topics include how problems with power quality can be avoided when operating a generator. What's the effect on equipment? Learn about the types of and proper installation of lightning protection.

The training begins at 8:30 a.m. and will conclude by 4:30 p.m. Lunch is on your own. Cities and rural water districts are encouraged to attend.

DATES & LOCATIONS:

Tuesday, February 21
Abilene Community Center
1020 NW 8th St., Abilene, KS

Directions: Exit off Interstate 70 at exit 275; go south on Buckeye St. to 7th St. Go west on 7th Street, which turns into 8th Street at the concrete bridge. The Community Center is located on the north side of the street.

Wednesday, February 22
Kingman Activity Center,
121 South Main St., Kingman, KS

Directions: From US Highways 400/54 turn south on Highway 14 or Main Street. Proceed south approximately five blocks to the Activity Center.

Thursday, February 23
Fossil Creek Hotel
1430 South Fossil, Russell, KS

Directions: The Fossil Creek Hotel is located just north of the intersection of I-70 and Hwy 283 on the west side of Hwy 283 (Fossil Creek)

TOPICS:

■ **GENERATORS:** Sizing, Correct Connections, Transfer Switches, Single Phase - Three Phase Operation

■ **GROUNDING:** Purpose; Sizing of Ground Wire and Ground Rods

■ **POWER QUALITY:** Explanation; Potential Problems; Possible Contribution by Generators

■ **LIGHTNING PROTECTION:** Need For Protection; Type of Protection; Installation

PRESENTER:

Robert Blume holds certification to teach Industrial Electricity. Bob has also operated his own electrical repair business for many years. He has provided training to more than 4,300 water and wastewater operators through KRWA.

FEES:

This training session is provided at NO CHARGE by the Kansas Rural Water Association.

REGISTRATION:

If you plan to attend, please complete the attached form and return it at your earliest convenience. **CLASS SIZE IS LIMITED TO THE FIRST 50 REGISTRANTS.** Return the registration form by mail or fax your registration to KRWA at 785/336-2751 or you may call KRWA at 785/336-3760. You may also register via the internet at www.krwa.net under "training". Pre-registration is required. Register early, please.

CERTIFICATION CREDIT:

Five hours of credit towards operator certification or renewal for water and wastewater operators will be awarded for each day of attendance.