

# Neutral-to-Earth Voltage Evaluator Training

(25 hours of instruction including an actual on-farm NEV evaluation)

**July 26-28, 2011**

Tuesday, July 26 - 8:00 a.m. to 5:00 p.m.

Wednesday, July 27 - 8:00 a.m. to 5:00 p.m.

Thursday, July 28 - 8:00 a.m. to 4:00 p.m. – on-site data recording, calculations & reports

**Location:** Farrall Hall (Room 114), Michigan State University, East Lansing, Michigan.

**OBJECTIVE:** Convey an understanding of neutral-to-earth sources, instrumentation, and equipment needed for an on-farm evaluation, and to discuss, demonstrate, and practice investigative procedures for conducting a farm evaluation.

**COURSE DESCRIPTION:** On the first day participants will receive instruction in electrical theory and measurement procedures related to neutral-to-earth voltage evaluations. A NEV trainer will be used to create realistic situations. Participants will have voltmeters at each location to make actual readings and learn to use instrumentation for specific purposes. On the second day sources of NEV will be discussed, illustrated, and demonstrated. Procedures for conducting an on-farm evaluation will be discussed along with instruction for filling out data sheets. Procedures for NEV mitigation will be discussed as well as demonstrated. On the third day procedures for conducting a NEV evaluation will be reviewed and participants will travel to a livestock farm to conduct an actual evaluation. Evaluation of effectiveness of neutral separation will be covered. Participants will return to a meeting room for lunch, interpretation of results, discussion of the investigation, and to take a test covering the key points of conducting a NEV evaluation.

**CONTINUING EDUCATION UNITS (from MSU)** will be granted to persons attending all sessions, completing the farm evaluation, submitting the completed forms, and receiving a minimum score of 70 percent on a written test over key investigation concepts covered in the course. Participants will receive a certificate and 2.5 continuing education units (CEU's) upon successful completion of the course.

**FEE: \$500.00 per** person that includes handouts from instructional materials, evaluation forms for recording data, NEV evaluation procedures, lunch each day plus dinner on the third day. To reserve your place in class, you must preregister by sending the registration form and your check (payable to Michigan State University) prior to the first class meeting. Space is limited and persons will be enrolled in the class in the order the registration forms and checks are received. No walk-in registration. MAEC member organizations qualify for a subsidized rate for this training.

**REFUND POLICY:** A registration fee, less \$45 processing cost, will be granted if notification in writing is received no later than July 22. One-half the registration fee will be refunded if notification is received after July 26.

**MATERIALS NEEDED:** Each participant should bring clothing suitable for working on a farm, including boots and rain attire. Instrumentation for conducting an investigation will be provided, although participants may bring personal equipment.

**INSTRUCTORS:** The course is taught by Agricultural Engineering Department staff. MSU staff has been conducting research and making farm neutral-to-earth voltage investigations for over 25 years. They have conducted NEV training throughout the United States, and have provided technical assistance related to the NEV issue to farmers, companies, and organizations. The staff holds master electrician licenses, professional engineer licenses and has extensive experience with farm wiring and the National Electrical Code. They have published numerous papers and bulletins on neutral-to-earth voltage subjects and have written three electrical text books.

## REGISTRATION

Please enroll me in the Neutral to Earth Voltage Evaluator Training course at \$500.

Name:

Address:

City:

Zip:

Email:

Phone (office/home):

Phone (cell):

FAX:

Employer:

Bus. Address:

**Lodging:** If you need suggestions for lodging please call 888-817-8895.

Make check payable to **Michigan State University** for \$500. MAEC members qualify for subsidized rate. *Sorry, no credit cards.* Send this registration form and check to:

Barb DeLong  
216 Farrall Hall,  
Michigan State University  
East Lansing, MI 48824-1323

For conference registration information, call Barb DeLong at Michigan State University, toll free at (888)-817-8895