

# MORE INFORMATION

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**ARRL Laboratory Manager**  
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**860-594-0318**

- <http://www.arrl.org/~ehare/rfi/plc/plc.html>
- <http://www.arrl.org/tis/info/part15.html>



HomePlug: <http://www.homeplug.org>

Home Phone Networking Alliance: <http://www.hpna.org>

May 23, 2003

Mr. John W. Rowe  
Chairman, President and Chief Executive Officer  
Exelon Corporation  
37th Floor, 10 South Dearborn St.  
PO Box A-3005  
Chicago, IL 60690-3005

Dear Chairman Rowe:

The Federal Communications Commission has received complaints that equipment operated by your utility may be causing harmful radio interference to an operator in the Amateur Radio Service. The complainant is:

Mr. John F. Meyer, K9QVB  
315 15<sup>th</sup> Street  
Wilmette, IL 60091-1526

The FCC has the responsibility to require that utility companies rectify such problems within a reasonable time if the interference is caused by faulty power utility equipment. Under FCC rules, most power-line and related equipment is classified as an "incidental radiator." This term is used to describe equipment that does not intentionally generate any radio-frequency energy, but that may create such energy as an incidental part of its intended operation.

To help you better understand your responsibilities under FCC rules, here are the most important rules relating to radio and television interference from incidental radiators:

**Title 47, CFR Section 15.5 General conditions of operation.**

(b) Operation of an intentional, unintentional, or incidental radiator is subject to the conditions that no harmful interference is caused and that interference must be accepted that may be caused by the operation of an authorized radio station, by another intentional or unintentional radiator, by industrial, scientific and medical (ISM) equipment, or by an incidental radiator.

(c) The operator of the radio frequency device shall be required to cease operating the device upon notification by a Commission representative that the device is causing harmful interference. Operation shall not resume until the condition causing the harmful interference has been corrected.

**Title 47, CFR Section 15.13 Incidental radiators.**

Manufacturers of these devices shall employ good engineering practices to minimize the risk of harmful interference.

**Title 47, CFR Section 15.15 General technical requirements.**

(c) Parties responsible for equipment compliance should note that the limits specified in this part will not prevent harmful interference under all circumstances. Since the operators of Part 15 devices are required to cease operation should harmful interference occur to authorized users of the radio frequency spectrum, the parties responsible for equipment compliance are encouraged to employ the minimum field strength necessary for communications, to provide greater attenuation of unwanted emissions than required by these regulations, and to advise the user as to how to resolve harmful interference problems (for example, see Sec. 15.105(b)).

The complainant has attempted unsuccessfully to work through your usual complaint resolution process and as a result the matter has been referred to our office. The FCC prefers that those responsible for the

proper operation of power lines assume their responsibilities fairly. This means that your utility company should locate the source of any interference caused by its equipment and make necessary corrections within a reasonable time.

While the FCC has confidence that most utility companies are able to resolve these issues voluntarily, the FCC wants to make your office aware that this unresolved problem may be a violation of FCC rules and could result in a monetary forfeiture for each occurrence. At this stage, the FCC encourages the parties to resolve this problem without FCC intervention, but if necessary to facilitate resolution, the FCC may investigate possible rules violations and address appropriate remedies.

The American Radio Relay League, a national organization of Amateur Radio operators, may be able to offer help and guidance about radio interference that involves Amateur Radio operators.

American Radio Relay League  
Radio Frequency Interference Desk  
225 Main Street  
Newington, CT 06111  
860-594-0200  
E-mail: [rfi@arrl.org](mailto:rfi@arrl.org)

Please advise the complainant what steps your utility company is taking to correct this reported interference problem. The FCC expects that most cases can be resolved within 60 days of the time they are first reported to the utility company. If you are unable to resolve this within 60 days, please advise this office about the nature of the problem, the steps you are taking to resolve it and the estimated time in which those steps can be accomplished.

If you have any questions about this matter, please contact:

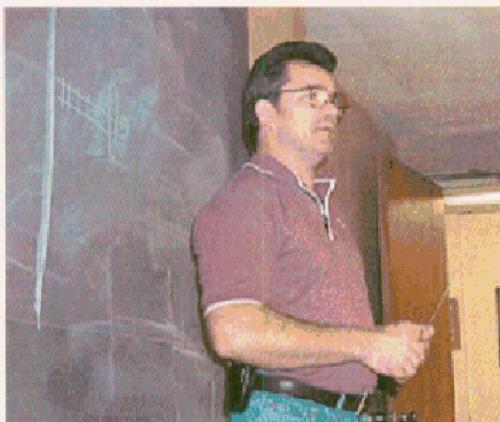
W. Riley Hollingsworth  
Special Counsel  
Enforcement Bureau, FCC  
E-mail: [rholling@fcc.gov](mailto:rholling@fcc.gov)

Thank you for your cooperation.

Sincerely,

Sharon Bowers, Deputy Chief  
Consumer Inquiries & Complaint Division  
Consumer & Governmental Affairs Bureau

## Power Line Interference Workshop at ARRL Headquarters a Hit



Mike Martin, K3RFI, teaches the basics of tracking down power line noise. [ARRL Photos]



This antenna on a van specially equipped by Martin makes tracking down power line noise a bit easier.

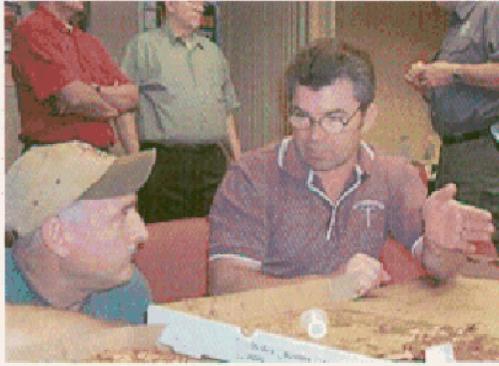


Some of the RFI "sniffing" gear inside the van.

NEWINGTON, CT, Aug 27, 2002--A two-day workshop at ARRL Headquarters on power-line interference turned out to be a great success on more than one level. The August 22-23 session, conducted by Mike Martin, K3RFI, of RFI Services of Maryland, not only attracted a better-than-average turnout, but participants were able to track down at least some of the sources of power line noise affecting W1AW. Most of those attending the session were involved with locating and dealing with power-line related interference issues.

"We're starting to get their attention," ARRL Lab Supervisor Ed Hare, W1RFI, said of the power companies. By hosting the workshop, the ARRL hoped to assist hams as well as the power companies to combat this longstanding problem. The course included hands-on field work and specific instruction on finding and fixing the noises that can plague Amateur Radio operators and other radio spectrum users. Participants went away with techniques on how to quickly determine which specific system hardware that is the source of the noise.

The FCC recently began taking a harder line toward alleged Part 15 violations involving power line interference to Amateur Radio operators. Martin's workshops are aimed at helping anyone involved with the electric power industry to find sources of power line noise--occasionally an ongoing and vexing concern for hams--and to help them to



**Mike Martin, K3RFI, makes a point over pizza with one of the RFI seminar participants.**



**The FCC's Riley Hollingsworth (right) and another seminar participant check out some of the gear that's used to pinpoint power line noise in the field.**

understand their obligations under FCC rules.

Among the 20 attendees were FCC Special Counsel for Enforcement Riley Hollingsworth, two members of the US armed forces, a communications specialist, several members of the ARRL Headquarters staff and several power company employees. "The RFI workshop was excellent and led to a much better rapport between the power companies and amateurs," Hollingsworth remarked. "Since RFI problems are often an early warning of an outage or danger to persons on the ground, it is important that the power companies respond. Power line interference can degrade the Amateur Service and must be dealt with."

The first day's class discussed the causes of power-line noise, some of the less well-known things to watch for and noise-locating techniques. On the second day, the whole group took to the field for some practical experience. Loading themselves into a fully equipped noise-locating van, the students went out to see if they could find the sources of noise that has been causing interference at W1AW for more than three years. It took the group less than an hour to find the two noise sources. Now that they have been identified, local power supplier Northeast Utilities will be notified and asked to correct the problem.

ARRL Electromagnetic Compatibility Specialist John Phillips, K2QAI, said participants' comments were uniformly positive. "It is our hope that as more people become aware of how easy it is to locate and fix most sources of power-line noise," Phillips said, "more power companies will take responsibility for

solving the problems expeditiously."

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