

As regards the FCC NPRM 04-37, I must object to any rulemaking that allows an unlicensed, "unintentional" radiator to knowingly and willfully put into practice equipment which causes harmful interference in the 0-50MHz spectrum. Licensed amateur operators have already demonstrated that BPL systems do cause harmful interference, by monitoring test BPL installations. The ARRL website, <http://www.arrl.org/> has documented this interference.

As other commenters have noted, even though BPL providers will be required to mitigate any interference that is reported, there needs to be a mechanism by which the interference can be attributed and reported correctly and quickly. I will address this concern in another paragraph later.

I would like to point out that due to the unpredictable nature of the types of emergencies that occur that require emergency radiocommunication services, no one in an area experiencing an emergency or disaster will have the opportunity to phone ahead to the power companies to tell them to turn off their BPL so that their emergency message can get through to people living in areas served (and being interfered) by BPL. If BPL is causing interference in one area when an emergency strikes, it will be too late to call the power company or the FCC to tell them to stop their interference. Public safety will have already been compromised.

New users (licensed users or unlicensed shortwave listeners, who become users after BPL becomes adopted) of the affected spectrum may not realize there is a problem when BPL is causing interference. Through their inexperience, they may simply think "Oh, the radio is always noisy like that." Thus, actual, real interference may go unreported.

Therefore, I would like to voice my objections to the RF interference caused by BPL technology, and indicate that great caution must be employed before rolling out this technology, if it is permitted to be deployed at all.

If, after all the objections noted in my and the other comments have been noted, BPL still is approved, then, I would like to see the following additional technical requirements added to BPL:

Technology has advanced sufficiently that many radio enthusiasts now use their personal computers as digital signal processing engines. The combination of a radio receiver, a personal computer, and a sound card, represents a powerful method of receiving digitally modulated radio carriers. Witness the popularity of PSK31, RTTY, and SSTV, all of which can now be decoded easily with a personal computer monitoring the sound output of a radio receiver.

Using this same technology, I propose that, if BPL is adopted, it be required that all BPL carriers encode a unique identifier in their data stream that, if received by a radio receiver, can be decoded by a personal computer with a sound card. There should be three components to this identifier:

- 1.) A unique identifier which identifies the power company or entity that owns the transmitter.

2.) A unique identifier which identifies which of the entity's transmitters is transmitting the code.

3.) A unique serial number (either sequential or pseudo-random), which can be used to verify when the identifying code was transmitted. This third check will confirm that the reporting station actually received the unintentional transmission from the BPL provider, allaying any of the provider's fears that the report of interference was not genuine.

The identifying code should be transmitted at regular intervals, perhaps one minute apart, along with the regular broadband data, although the identifier tag will necessarily be transmitted unencrypted.

The method by which a PC with a sound card can be used to decode the ID tag will be made publicly available, so that anyone with a PC, sound card, and radio receiver operating in the 0-50MHz band will be able to decode the ID tags.

A database of provider ID codes should be available on the internet and in other publications, so that persons receiving interference from BPL, who have used their PC and sound card to decode the ID tag can look up the contact information for the offending carrier.

If there is no interference generated by BPL, then no one will ever hear the ID tags in their radio receivers. If there is interference, then it will be possible to positively identify the source, and provide information to the BPL provider as to which piece of their equipment is causing the interference, and more rapidly resolve the interference problem.

I hope that interference from BPL systems never occurs in the first place.

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