

The most egregious statement in ET Docket No. 04-37 is the FCC's belief that "...in practice, many amateurs already orient their antennas to minimize the reception of emissions from nearby electric power lines." This is an irresponsible statement! No one, amateurs or otherwise, should have to orient their antenna in an attempt to null out interference which is in violation of Part 15 rules. Is the FCC suggesting that amateur radio operators sacrifice the use of portions of their allocated spectrum to accommodate BPL? If the station with which I am trying to communicate is in the same direction as an interference source, I cannot change the heading of my antenna or both the interference and the other station will be nulled out. Since BPL radiation will extend into the low-band VHF television frequencies, the same situation will hold true if the television transmitter is in the same direction as an BPL interference source. Also, many amateurs' and short wave listeners' antennas are simple dipoles which cannot be rotated and are not very directional. Some amateurs utilize vertical antennas which are non-directional in the E-plane (azimuth) and have no nulls in their pattern to aim towards an interference source.

The FCC surmises that power companies will immediately identify reported interference and take the necessary action to mitigate it. I, personally, have had an interference complaint on file with my electric service provider for nearly a year (including an interim phone call) and no action has been taken. In the past, when I have managed to get them to respond, they sent personnel who were neither qualified to do the job nor were they provided adequate equipment. The only time that this company did correct an interference problem was when I tracked the interference source myself; it still took them over a month to fix the problem. In other words, eliminating radio and television interference caused by faulty power line components is a very low priority issue for power companies. Therefore, if the Commissioners are under the impression that these same power companies will respond immediately to BPL interference complaints, they will soon learn otherwise. Does the FCC have sufficient enforcement capabilities to be able to deal with BPL providers who ignore interference complaints?

In addition to interference generated in a local area, the FCC has failed to address the fact that even low power emissions in the HF radio spectrum can be propagated hundreds or even thousands of miles. If power companies can not even identify local sources of interference, they certainly will not be able to identify interference arriving into their area via sky wave or sporadic-E propagation. Interference arriving at a receiver via the above mode will be almost impossible to mitigate unless the source can somehow be determined.

Furthermore, the just released report by NTIA, 04-413, has determined that emissions from BPL activities were not always predictable; signal peaks would occur at several locations. This observation is in direct opposition to the FCC's assumption that BPL radiation emulates a point source, i.e., easy to locate. Since the radiation of BPL signals is now proven to be coming from an actual antenna, in this case a "longwire" radiator, mitigation of the interference will be much more difficult than the FCC is

assuming. In other words, the interference cannot be easily mitigated if the source is difficult to determine. Mitigation is exacerbated due to the fact that power companies are ill equipped to track down interference sources as I mentioned in an earlier paragraph.

The FCC has not even broached the subject of interference to BPL. Over the years, I have had to deal with irate neighbors when my transmissions are heard over telephones and other devices which are not even designed to receive RF transmissions. In addition, I have been blamed for activating garage door openers (a Part 15 device) and told that eliminating the problem was my responsibility even though the Part 15 rules are pasted right on the device! In addition to these instances, the FCC is now going to add BPL to the list of electronic devices whose owners I will have to attempt to placate when their internet connection is corrupted by my legal transmissions. Since this type of interference cannot be mitigated by the BPL provider, will the FCC take pre-emptive action (as delineated in some of the bullets below) to ensure that the providers and users of BPL know the interference potential to and from this service so that licensed spectrum users do not get blamed for it when it occurs?

Since the FCC, despite rational objections, is forging ahead and allowing BPL, the Commission, at a minimum, must take the following steps to inform BPL users and providers of their responsibilities with regard to Part 15 radiation, to ensure compliance and to deal swiftly with BPL providers when the regulations are ignored.

- Utilities must be held responsible for immediate interference mitigation 24/7. Interference experienced by mobile stations must also be mitigated.
- A BPL data base must be established, be readily accessible to the public and be kept current.
- BPL systems must be tested for rules compliance by an independent laboratory prior to the initiation of service and periodically thereafter. The periodic testing shall be done to preclude the possibility of radiation in excess of Part 15 limits being propagated away from the source via sky wave or Sporadic-E should there be no receivers in the immediate vicinity to detect it locally.
- Marketers of BPL services must give clear notice to consumers that licensed radio services have priority and that the delivery of BPL services therefore cannot be guaranteed. This notice shall be in bold print, in at least a 12 point font in the customer's contract. Receipt of this notice must be acknowledged in writing prior to the signing of any contract for service. Solely relying on the usual Part 15 disclaimer placed in an instruction manual in fine print or affixed to the equipment would not be acceptable.
- Marketers of BPL services, themselves, must read and understand Part 15 regulations. Verification of this understanding shall be signed by not less than three corporate officers.
- Marketers of BPL services must own a mobile unit outfitted with the appropriate equipment necessary to track and identify BPL interference sources and employ personnel capable of using it. In lieu or ownership of such equipment, the provider shall have on

retainer a company which shall have the above capability.

• Severe penalties shall be levied for non-compliance. These should be delineated in the signed verification of understanding in the preceding bullet.

In closing, digital data transmissions contain RF energy; it will radiate if unshielded conductors are utilized for its transmission medium. Mitigation of this interference is going to be difficult if not impossible in many cases. The FCC must be prepared to expeditiously enforce the Part 15 Rules and Regulations when interference to licensed communications is caused by BPL operations.

Respectfully submitted,

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