To the FCC Commissioners:

As an amateur radio operator, I make the following comments to ET docket 04-37.

I agree with the Commission's stated goal of bringing Broadband Internet Access to as many Americans as possible. However, I believe there has been substantial and credible evidence presented which indicates that Access BPL could make the high frequency (HF) and low-VHF bands essentially unusable for other services.

Assuming that Access BPL is to be fully deployed, there must be protections provided for the numerous users of the HF and low-VHF spectrum between 2 and 80 MHz. Part 15 of the FCC's Rules has been carefully modified in this NPRM to provide protection to users from harmful interference caused by Access BPL. But, the question that must be asked is, do these modifications really protect users, or were they put there just to appease those whose operations will be seriously affected by interference from BPL without really having any "backbone"?

One question that must be asked is: What constitutes "harmful interference"? The FCC's Part 15 definition of this term is: "Any emission, radiation or induction that endangers the functioning of a radio navigation service or of other safety services or seriously degrades, obstructs or repeatedly interrupts a radiocommunications service operating in accordance with this chapter." Using this definition, and through testing and observation in BPL trial areas, it has been well-documented that Access BPL has the ability to, and has in fact caused interference which fits the description of "harmful" to users of the Amateur Radio Service by repeatedly rendering large portions of HF spectrum unusable for communications. Furthermore, only the FCC can make a determination of what constitutes "harmful interference". Therefore, in cases that cannot be resolved by interference mitigation techniques discussed in the NPRM, I can envision the FCC being forced to make those determinations, further burdening the Commission with additional work.

The changes proposed in this NPRM to Part 15 do potentially offer some protection, assuming they are strengthened, adopted, and enforced. I offer the following suggestions to strengthen Part 15 to properly protect licensed users from harmful BPL interference:

1. Radiated emissions tests should be conducted on location. A standardized measurement procedure must be developed by an industry technical committee, and a BPL system must not be put into general service until compliance with the rules is verified. An independent auditor should perform the testing.

2. Systems verified as compliant with Part 15 rules must be periodically re-verified to assure continued compliance, and the date of the last compliance test included in the database of BPL information. I suggest re-verification once yearly, unless the system undergoes changes to the equipment used, the

coverage area, or a significant increase in the number of subscribers in which case, re-verification should be required at the time of the change.

3. Once the rules are finalized, BPL systems currently deployed or being deployed must be brought into compliance, within a reasonable amount of time. My suggestion is to allow thirty (30) days to perform the necessary testing and complete any required modifications, if noncompliance is revealed.

4. Unless serious penalties are imposed on those who violate the rules in this proceeding, there will be no incentive for BPL providers to follow them. Therefore, I suggest a minimum of $10,000 per occurrence per day in penalties, levied against any BPL provider and/or equipment manufacturer determined to have violated the rules.

I support the requirement for strict adherence to the "no interference" rule in Part 15. In order for this requirement to work, however, there must be some further strengthening of the rules. I suggest the following:

1. The Commission has suggested the establishment of a publicly accessible database of Access BPL information. I support this rule, but it must have some teeth. I suggest that any attempt to falsify or leave information off the database should be treated as a violation of the rules, and be punished accordingly. Otherwise, there will be no incentive for BPL providers to keep such a database accurate and it will be of no value. In addition to the Commission's suggestion as to the information contained in this database, I suggest that the database must indicate, to anyone accessing it, the date and time of the last update to any entry in the database. I suggest a minimum of $10,000 per occurrence per day in levied fines to anyone determined to have willfully omitted information from the database.

2. There must be some form of human readable identifier transmitted by an Access BPL system so that anyone experiencing interference can easily decode that information and then use it to search the database for the contact information required to lodge a complaint. Adoption of this idea will have the effect of eliminating unnecessary complaints to BPL providers when the source of the interference is not BPL, and make it possible for people to positively identify interference that is from BPL. If this is not adopted, it will be much more difficult for people to identify the source of the interference and unnecessary complaints to BPL providers may result.

3. BPL providers must be required to establish an "Interference Mitigation Department", manned 24/7 for receipt of calls or emails regarding interference from BPL systems. This department would have the responsibility of accepting the complaint and generating a response- either movement of the BPL energy to other portions of RF spectrum, or in the case of interference

that could not be mitigated by those means, shut down of the system until such time as the problem could be resolved. There must be a response time window established, as well. I suggest a maximum of ten (10) minutes, because in the case of emergency communications which are affected by BPL interference, life and/or property could be seriously jeopardized with a delay any longer than that. There must also be severe penalties resulting from non-response of BPL providers to calls for interference mitigation. In this case, since life and/or property may be at stake, a penalty of $10,000 per occurrence per day is probably not enough.

4. All BPL providers must be required to explain to their customers that the BPL system may have to be shut down due to complaints of interference to licensed users, and that their access to the Internet may suddenly be lost due to system shut down. BPL providers must also be required to explain to their customers that BPL system integrity may be interrupted by inbound interference from licensed users of the RF spectrum occupied by BPL. BPL providers must inform their customers that they (the users) have no recourse in these cases. All BPL customers must be required to sign a contract stating that they understand and agree to these conditions. Without such protections, licensed users will suffer the anger of BPL users when they lose their access to the Internet and are told by the provider that the reason is "because of interference to/from the ham down the street."

5. Mobile operations, whether amateur or public safety, need to be protected from BPL interference, as well. Just because a mobile operator *may* only be within a BPL area for a short time does not mean he *will* be there for a short time. During emergency situations, operators position themselves where their need is greatest, and there is nothing to guarantee that this will not be in an area served by Access BPL. In rural areas potentially served by Access BPL, the (usually voluntary) fire and ambulance services are typically dispatched on frequencies in the low-VHF band. The impairment of communications with such emergency services could seriously jeopardize life and/or property in the areas intended to be served by BPL. Therefore, it is imperative that a human readable identification system is employed and an Interference Mitigation Department is established, so that mobile stations may identify BPL interference and contact the provider (by any means available) to have it immediately moved or shut down.

In summary, while I fully expect that Access BPL will be deployed within the United States, I am not happy about it. Since there does not seem to be an alternative, I have suggested some improvements to the rules in Part 15 which will help to reduce the effects of interference from and to Access BPL by licensed users of the RF spectrum between 2 and 80 MHz.

Thank you for the opportunity to comment on this important matter.

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