

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the matter of)
)
Inquiry Regarding Carrier Current) ET Docket No. 03-104
Systems, including Broadband over)
Powerline Systems)

To: The Commission

**REPLY COMMENTS OF
W. J. J. HOGE
TO THE COMMENTS OF AMBIENT CORPORATION**

By: W. J. J. Hoge
20 Ridge Road
Westminster, Maryland 21157

1. I am a licensed Amateur Radio Operator. My call sign is W3JJH. I received a Bachelor of Engineering degree in Electrical Engineering from Vanderbilt University in 1970. I have been employed in engineering design and management in the broadcast and satellite communications industries and in other areas related to electromagnetic compatibility and interference for over 30 years.
2. I wish to bring to the Commission's attention the portion of Ambient Corporation's (AC) comments concerning "Use of OFDM and Agile Notching to Prevent Interference." AC's proposed agile notching would cause their BPL system to cease operation in a portion of the spectrum where their system detected interference from a local licensed transmitter. This is a tacit admission that their system is prone to causing interference to licensed services.
3. While AC's agile notching might be a useful means of protecting users operating on fixed frequencies, it cannot effectively protect the Amateur Service. First, amateur stations do not operate on fixed frequencies. They are frequency agile within the amateur bands. Second, the victimized amateur station may be listening for a distant station whose signal level might be in a range thousands of times below the allowable interference level permitted under the present Part 15 Rules. There would be no way for AC's system to hear the

distant signal so that it could begin notching.

4. The present Part 15 levels assume a point source of noise. BPL lines are large, distributed, and efficient radiators. A reduction from $30 \mu\text{V/m}$ @ 30 m to 300 nV/m for the HF range would be a drastic reduction from the current requirement but would still result in a significant increase in electromagnetic smog. Based on the information in AC's comments, it does not seem that their system would be capable of reliable operation at these levels.

5. The Commission's goal of improved and expanded Broadband Internet access is definitely in the public interest. However, allowing BPL to cripple existing over-the-air services is not.

Dated: 18 August, 2003