

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In re Application of

AMBIENT CORPORATION

Application for Renewal of Radio Station

Authorization Under Part 5 of the

Commission's Rules

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File No. 0132-EX-AR-2007

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AUG 15 2007

To: The Chief, Office of Engineering and Technology
VIA OFFICE OF THE SECRETARY

Federal Communications Commission
Bureau / Office

REPLY TO OPPOSITION TO INFORMAL OBJECTION

ARRL, the National Association for Amateur Radio, also known as the American Radio Relay League, Incorporated (ARRL), by counsel, hereby respectfully submits its Reply to the August 6, 2007 letter Opposition to ARRL's Informal Objection to the above-captioned application for renewal of an experimental authorization. The experimental authorization, now expired on its face, permitted Ambient Corporation (Ambient) to conduct broadband over power line (BPL) operations at variance from those permitted by the Commission's Rules (*See, 47 C.F.R. §§15.601-15.615*). The application for renewal, filed by Ambient on July 24, 2007, is presently pending. For its reply to the Ambient Opposition to Informal Objection, ARRL states as follows:

1. Ambient strongly objects to what it characterizes as ARRL's "attempts to undermine the rapid (sic) and widespread (sic) development of promising and innovative broadband technologies" under the access BPL rules. The ulterior motive ascribed to ARRL by Ambient is a generalized opposition to FCC rules and policies governing BPL generally and applicable to BPL systems nationwide. Ambient's argument is quite obviously a red herring. Quite to the contrary, ARRL has argued that Ambient's BPL

systems, wherever they are actually located,¹ should be subject to the same rules as those which were adopted in October of 2004 by the Commission to govern all BPL deployments in the United States. It is no secret that ARRL believes that the Part 15 rules adopted by the Commission for BPL operation are woefully inadequate to address the many instances of, and potential for harmful interference to Amateur Radio and other high-frequency (HF) licensed users. However, those rules, at the moment, are in place and govern BPL operation. Ambient has had five years to bring its systems into compliance with the Part 15 rules. It has, during that time, been unable to demonstrate that it can operate a BPL system without causing harmful interference to licensed services, and unwilling to abide by the terms of its experimental authorization. Ambient has shown absolutely no basis for perpetuating the special dispensation that it has enjoyed for five years. It is time that Ambient is required to compete on a level playing field with other BPL companies, and to abide by the same rules as those other companies.² Ambient claims to be supportive of the Commission's adopted rules regarding Access BPL. It leaves unexplained, however, why it is unwilling to abide by those rules in its own BPL deployment. Its Opposition outlines nothing specific concerning the results of its experiments, but instead merely touts its marketing goals and commercial deployments, all of which can and should be done pursuant to the present Part 15 rules.

¹ Ambient cites in paragraph 2 of its Opposition numerous progress reports, but the reports filed to date by Ambient contain measurements only of its Briarcliff Manor, New York BPL system and no others.

² Ambient's attack on ARRL does not meet the "red face" test. ARRL has consistently been opposed only to BPL interference, not BPL *per se*. ARRL encourages and has worked proactively with BPL companies to help those who wish to deploy BPL in a responsible manner. For example, ARRL offered its facilities for the deployment of a Motorola BPL facility (See, WC9XGC) that proved benign to Amateur Radio. ARRL has cooperatively assisted in addressing electromagnetic compatibility issues with HomePlug, DS2 and other BPL manufacturers. Ambient's deployment of BPL, on the other hand, has consistently been irresponsible, and its attitude toward the interference it inevitably has caused (and as well to its reporting obligations pursuant to its experimental authorizations) has been arrogant and unhelpful.

2. This experimental authorization has *nothing whatsoever* to do with the Commission's Section 706³ mandate to encourage the provision of new technologies and services to the public. If there is any application of Section 706 to BPL at all,⁴ the Commission discharged it by the adoption of the BPL Part 15 rules, or at least the Commission has attempted to assert.⁵ The Commission's very flexible BPL rules, adopted October 14, 2004, provided an eighteen-month transition period for BPL companies to bring their products into compliance with the Commission's rules. *Inquiry Regarding Carrier Current Systems, Including Broadband Over Power Line Systems*, 19 FCC Rcd. 21265, ¶ 130 (2004). Given this, there is no justification whatsoever for continued experimental operation by Ambient, which is conducting no experiments at all. Rather, it is simply operating a commercial BPL system and attempting to find a market for it. In doing so, it has caused interference to licensed services on a willful and repeated basis. Ambient notes that its products have received a grant of equipment authorization, and therefore admits that it is capable of operating in accordance with the BPL rules. It claims that it is planning several Class I or II permissive changes, but fails to explain, in its renewal application or otherwise, why those require an experimental authorization. Manufacturers of RF products modify those products all the time, and identify their improvements or modifications as either Class I or II permissive changes, without requiring any experimental authorization or STA for the process.

³ See, 47 U.S.C. § 157

⁴ There is actually no such connection. BPL is not a new technology or service. PLC systems have been in place for many years. BPL is merely a different application of old technology, in an inappropriate frequency band.

⁵ See, Brief of Respondent Federal Communications Commission, *ARRL v. FCC and USA*, U.S. App. D.C. No. 06-1343, at 5.

3. Ambient's claim that it is working with the New York State Energy Research and Development Authority (NYSERDA) refers to use of a BPL system for electric distribution monitoring, but that is simply a deployment issue, not something that would justify an experimental authorization. There is no indication that the Part 15 parameters cannot be met by that deployment. More importantly, it is unexplained why Ambient cannot operate any BPL system within the parameters of the Commission's BPL rules. And this late explanation, in an opposition to an Informal Objection, is in any case simply *post hoc* rationalization for its failure in its renewal application to justify the extension *at all*. Ambient claims at paragraph 3 of its Opposition that it has other deployments, but again, makes no claim that it requires an experimental authorization for any of them. The "national scope" of the experimental authorization is irrelevant, where the Part 15 rules permit operation of BPL systems anywhere within the Commission's jurisdiction. Any other experimental authorizations sought by BPL companies in the past have been for specific locations for specific purposes. Ambient apparently wants not to have to comply with the BPL Part 15 rules. Ambient's marketing plan is completely irrelevant to the need for an experimental authorization looking forward. Its proffer, that demonstration of equipment to utilities of the "potential consumer and operational benefits" justifies the experimental authorization renewal, is gibberish. It can demonstrate a BPL system anywhere it likes, pursuant to the Part 15 rules.

4. Ambient claims, again by way of *post hoc* rationalization, that some useful information is obtained from testing emissions compliance of its equipment designs at various power settings, which are affected by certain environmental and other factors. Why this necessitates an experimental authorization is unclear. Further, there has been

nothing whatsoever in any of its few and sketchy progress reports that describes in any way any of these allegedly significant operational or environmental factors that supposedly have some effect on emissions that is larger than was previously known.

5. Ambient claims, with respect to interference resolution, that it is now, after five years, notching Amateur bands. That would have been its obligation long ago, as an alternative to permanent cessation of operation pursuant to its experimental authorizations, given the interference caused by its system at Briarcliff Manor. However, if it is in fact finally replacing its experimental equipment with certified equipment, there is no need for further operation pursuant to experimental authority. However, Ambient's credibility is lacking in this respect. Ambient has, again and again, made the claim that its equipment was being replaced at Briarcliff Manor. Based on ARRL staff visits to the site, the claim has, at best, been shown to be only partially true. At each site visit, after a claim of notching of Amateur HF bands, parts of the system have been found not to have been notched on one or more Amateur bands. These visits have been documented in interference complaints over the past several years, with no response from the Commission until very recently.

6. Ambient's position on interference is frustratingly variable and disingenuous. First, it claims that it has not been able to verify any interference at its Briarcliff Manor site, and cites a February 10, 2005 letter from Bruce Franca, formerly of the Commission's OET staff, for the premise. The FCC's claimed visit to Briarcliff Manor, however, did not involve the complainant, and it was not conducted at locations where the interference was reported previously. By contrast, Riley Hollingsworth, Esquire of the Commission's Enforcement Bureau staff visited Briarcliff Manor and personally

observed the interference, which was severe. Ambient's alleged inability to find its own interference is easily understood, but unfortunately, it has been all too easy for Amateur Radio operators to find it at Briarcliff Manor. Perhaps if Ambient at some future time actually replaces all of its "legacy" equipment with "second generation equipment" including notches of Amateur bands, its abysmal interference record will improve. Regardless, however, it is not entitled to, nor does it need, an experimental authorization any longer, and the claim of G2 equipment installation constitutes an admission of such.

7. In its response to Legislator Burton's letter, Ambient claims that it has not received any complaints from "fixed" Amateur Radio operators, and notes that in any case, RACES operation by amateur radio operators is not classified as "public safety". It asserts, however, that electric grid monitoring is public safety, and that its experimental authorization is somehow related to furthering public safety telecommunications. This logic is awry. Ambient's experimental authorization does not allow Ambient to distinguish between fixed and mobile interference victims. It was under the terms of the authorizations (specifically condition #1) obligated to immediately shut down the facility if "any interference is caused". Ambient cannot pick and choose among the conditions of its experimental operation versus Part 15 operation. It is one or the other. RACES operation in the State of New York is a public benefit, according to Legislator Burton. It is irrelevant that Part 97 RACES operation is not classified by the Commission as "public safety", as Ambient notes. And, in fact, electric grid monitoring, which would not be prohibited if Ambient was forced to operate under the rules applicable to other BPL systems, is quite obviously not classified by the Commission as "public safety" either.

8. In conclusion, there is nothing in the four corners of Ambient's Opposition which provides the slightest justification for continuation of the experimental authorization Ambient has used for the past three years to subvert the Commission's regulatory scheme, such as it is, for BPL systems. Ambient's application should be immediately denied. The Commission should adjudicate this matter on a timely basis. Since Ambient timely filed its renewal application, it is entitled to continue to operate its unspecified BPL system(s) pending adjudication of the renewal application. The Commission typically resolves experimental authorization applications very rapidly following their filing. Allowing this matter to drag on is tantamount to a grant of the renewal. ARRL is entitled to an expeditious resolution of this matter, and so requests. It is further requested that the Commission associate these pleadings with the Experimental Authorization files for Ambient, and with the pending enforcement proceeding files so that they are publicly available.

Therefore, the foregoing considered, ARRL, the National Association for Amateur Radio, again respectfully requests that the Commission expeditiously deny or dismiss the pending, above-captioned application for renewal or extension of the experimental authorization of Ambient Corporation for its BPL operations in Briarcliff

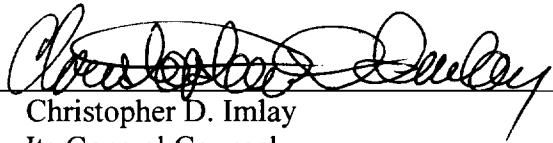
Manor, New York and in other locations in the United States where it may be operating BPL systems.

Respectfully submitted,

ARRL, the National Association For Amateur Radio

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By: _____

A handwritten signature in black ink, appearing to read "Christopher D. Imlay", written over a horizontal line.

Christopher D. Imlay
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August 15, 2007

CERTIFICATE OF SERVICE

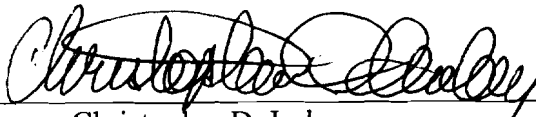
I, Christopher D. Imlay, do hereby certify that I caused to be mailed, via first class U.S. Mail, postage prepaid, a copy of the foregoing REPLY TO OPPOSITION TO INFORMAL OBJECTION, to the following, this 15th day of August, 2007. Copies have been sent this date as well by e-mail attachment.

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