

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
WD2XEQ

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

INFORMAL OBJECTION

ARRL, the National Association for Amateur Radio, also known as the American Radio Relay League, Incorporated (ARRL), by counsel and pursuant to Section 5.95 of the Commission's Rules governing experimental authorizations, hereby respectfully submits its informal objection to the above-referenced application for renewal of Ambient's experimental authorization 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 Corporation (Ambient) was filed July 24, 2007 and is presently pending. As good cause for the **denial** of this renewal application, ARRL states as follows:

1. Ambient **has**, for the past five years, deployed interference-causing BPL facilities at, inter alia, Briarcliff Manor, New York in Westchester County. It has been operating pursuant to the WD2XEQ experimental authorization, issued in 2005, and its predecessor, WB9XQT, first issued in 2002.¹ Ostensibly, the Ambient system is

¹ WB9XQT, an STA, was first issued June 24, 2002, providing for BPL operation only in Westchester County, NY (File No. 0218-EX-ST-2002; it was extended by STA granted December 24, 2002 (0435-EX-ST-2002). WB9XQT was replaced by WD2XEQ, an experimental authorization for a two-year period

operating in **Briarcliff** Manor for the purpose of testing BPL systems. However, since the **issuance** of the **first** experimental authorization, rules have been enacted for the regular Part 15 operation of BPL systems and there is nothing that has been filed by Ambient which could justify the continuation of experimental operation of this system rather than operation pursuant to the Commission's rules governing virtually all other BPL systems.

2. ARRL filed complaints on October 12,2004; December 17,2004; January 7, 2005; March 17,2005; January 6,2006, March 29,2006, and May 31,2007, each of which reported ongoing, harmful interference caused by the **unlawful** operation of Ambient's BPL system at Briarcliff Manor in violation of the **terms** of the experimental authorizations. The complaints included technical reports on the result of tests conducted by ARRL. The conclusion reached in each complaint, which ARRL now incorporates herein by reference, is that this facility was, and now still is, causing harmful interference to Amateur Radio stations. As such, it is in violation of the terms of the experimental authorization. Condition #1 of that Experimental authorization requires that if "any interference" occurs, the holder of the authorization will be subject to immediate shut down. Interference has repeatedly occurred, and it has been witnessed and verified by a member of the Commission's Enforcement Bureau **staff**. Yet no action has been taken whatsoever to terminate this experimental authorization in response to any of the complaints of **harmful** interference filed by ARRL and by at least one local Amateur Radio licensee. It would be unconscionable for the Commission to **further** renew this experimental authorization in the face of these unresolved complaints of interference. Furthermore, the **Commission** has finally, after years of inaction, commenced an

beginning July 28,2003 and expiring August 1, 2005 (0118-EX-PL-2003). It **was** extended to August 1, 2005 (0118-EX-RR-2005) and again through August 1,2007 (0118-EX-RR-2005). WD2XEQ is a "nationwide" authorization, and is not limited to Briarcliff Manor, NY .

enforcement proceeding (See, Enforcement Bureau file number **EB-06-SE-083**). That proceeding is still under investigation, **making** renewal of this Experimental authorization completely inappropriate.

3. More **fundamentally**, however, Section 5.71(b) of the Commission's **rules** provides that an experimental authorization will not be **granted** for a period longer than that which is required for completion of the experimental project. There is nothing offered in the pending renewal application that would justify the extension of Ambient's experimental authorization beyond the five years that it has been authorized to operate its interference-causing BPL system. Section 5.71(a) of the Rules states that the regular license period for stations in the Experimental Radio Service is either 2 or 5 years. An applicant desiring to apply for a 5 year license must provide justification for its need for a license of that duration. A license may be renewed upon an adequate showing of need. **Here**, the aggregate experimental license term including the STA periods totals more than five years **to date**. There is nothing in the renewal application that would justify any further experimental authorization period, and in fact it is apparent from the cited regulation that the Commission cannot extend the experimental period any further, because it has already been of five years duration, and because no good cause has been shown for the further extension.

4. The extension application offers, in fact, no ***justification whatsoever*** for a sixth or seventh year of experimental BPL operations, and no explanation why Ambient cannot operate pursuant to the BPL rules under Part 15, as virtually every other of the few BPL systems in operation now are doing. Ambient has had five years of experimental operation of the **Briarcliff** Manor BPL facility. It has failed during that time to provide

reports of the findings of its experimental operations as required by Condition #5 of the **authorization**² or to explain anything about its "significant advancements" in technology. It is operating a regular service based on an experimental authorization, in violation of Section 5.83, which provides that the grant of **an** experimental authorization to use certain frequencies is granted upon an experimental basis only and does not confer any right to conduct an activity of a continuing nature. This is clearly an activity of a continuing nature, and if it is to continue at all, it must be pursuant to the regular rules that have been enacted by the **Commission** governing BPL operation.

5. The continued operation of this facility pursuant to an experimental authorization subverts the Commission's regulatory "scheme" for BPL interference avoidance. For **example**, because the Ambient Briarcliff Manor BPL system is operated under an experimental authorization, the Commission has determined (inexplicably) that the BPL system does not have to be included in the publicly available database listing BPL systems that are operational, and contact information to report interference. Therefore, those licensees in the Amateur Service or in other services using high-frequency bands who suffer interference from the excessive radiated emissions **from** the system have no indication how to complain about it, or ascertain the source of the interference. Causing Ambient to operate in accordance with the long-ago-enacted BPL rules rather **than** allowing it to hide behind an experimental authorization would at least be consistent with the Commission's regulatory plan for BPL, however inadequate that

² See, the letter of the Chief, **Spectrum** Enforcement Division, Enforcement Bureau dated May 21, 2007 to Ambient, stating in part that Ambient was required to file progress reports six months **from** the date of grant of the Experimental Authorization. The progress report **was** specifically required to include a description of measurements and results demonstrating compliance with the Commission's Rules, including the radiated emission **limits** of Section 15.109 of those rules. According to the May 21 letter, Ambient submitted its "most recent" six month report February 5, 2007. In it, Ambient submitted no measurements at all. It merely stated that certain Amateur high **frequency** bands were notched, and claiming "significant advancements" in its technology.

plan is in **terms of interference** avoidance. It also would create a level playing field for BPL competitors, who are operating in accordance with the Part 15 rules. As well, use of certificated equipment would be required of Ambient if it is forced to comply with the rules applicable to all other BPL systems. If it does comply with those requirements, perhaps at least some of the abundance of **unresolved** and unaddressed interference problems caused by Ambient would be reduced.

6. It is unclear why Ambient required a nationwide experimental authorization. If it is **operating** BPL systems other than the **Briarcliff Manor** system, it has not submitted any six-month periodic reports with respect to any of them. Accordingly, it has not complied with the terms of the expiring experimental authorization and it should not be rewarded by a renewal of the authorization.

7. Finally, **attached** hereto is a letter **from** a member of the Westchester County Board of Legislators, William E. Burton, objecting to any renewal of the Ambient Experimental Authorization, due to the **adverse** impact on emergency communications provided for the County by Amateur Radio operators associated with the Radio Amateur Civil Emergency Service (RACES), the Amateur Radio Emergency Service (ARES) and the **Westchester Emergency Communications Association (WECA)**. The letter notes a lack of cooperation by Consolidated Edison about the BPL interference, and cites the repeated **BPL** interference complaints by Mr. Alan Crosswell, the Radio Officer appointed by WECA.

Therefore, the foregoing considered, **ARRL**, the National Association for Amateur Radio, **respectfully requests** that the Commission deny and dismiss the **pending**, above-captioned application for renewal or **extension** of the experimental authorization of

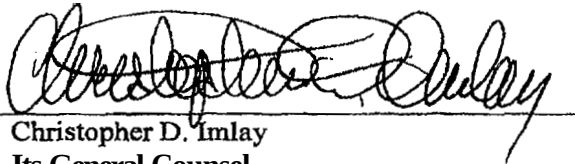
Ambient Corporation for its BPL operations in Briarcliff Manor, New York and in other locations in the United States where it may be operating BPL systems.

Respectfully submitted,

ARRL, the National Association For Amateur Radio

**225 Main Street
Newington, CT 06111-1494**

By:


Christopher D. Imlay
Its General Counsel

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July 25, 2007

William E. Burton**Legislator, 9th District**

Chair, Committee on Public Safety & Security



Committee Assignments:
 Budget & Appropriations
 Family, Health & Human Services
 Housing, Planning & Government Operations
 Public Works, Transportation, Labor & Parks

July 13, 2007

Mr. Kris Monteith
Chief, The Enforcement Bureau
 Federal Communications Commission
 445 **Twelfth Street**, SW, **Room** 7-C723
 Washington, D.C. 20554

RE: AMBIENT CORPORATION BROADBAND OVER POWER LINE
 SYSTEM AT **BRIARCLIFF MANOR, NEW YORK**; EXPERIMENTAL
 AUTHORIZATION WD2XEQ, EXPERIMENTAL LICENSE FILE NO. 0118-
EX-PR-2005, EXPIRES AUGUST 1, 2007; ENFORCEMENT BUREAU FILE
 NO. EB-06-SE-083.

Dear Mr. Monteith:

I am writing in my capacity as Chairman of the **Westchester County (New York)** Board of **Legislators'** Committee on Public **Safety** and **Security**. I would like to share my concerns with the **Commission about** the Broadband over Power Line (**BPL**) system operating in the **Westchester County Village** of **Briarcliff Manor** and the interference it has caused to local amateur radio operators.

As a populous suburban county in a major metropolitan region, **Westchester** is fortunate in **having** highly trained and qualified **amateur** radio operators to assist our emergency **communications services**. The professionalism of these volunteer radio operators is evident in **both their assistance with day to day Westchester County** communications needs, as well as in their availability to be **our communicators** of last resort, "when all else **fails**." These volunteers also **assist** at all **levels** of local **government** in **Westchester** and **also** provide service to such non-governmental **organizations** as the American Red Cross. They **serve** both individually and **as members** of the Radio Amateur Civil **Emergency Service**, the Amateur Radio Emergency **Service**, the **Westchester Emergency Communications Association**, and of course **the** American Radio Relay League (ARRL).

I am therefore **concerned** that the BPL **experiment** now **being** conducted in Briarcliff **Manor** is showing substantial interference with the local amateur **radio** frequencies. Data brought to me and my committee's **attention** is very disturbing. I am **seeking** the follow-through of the FCC in its monitoring and regulation of this **experimental** technology to ensure that harmful interference is eliminated through strict enforcement of FCC rules regarding BPL.

Data provided by amateur radio operators in **Westchester County** appears to show that the interference issue regarding BPL is well-known to several federal departments **concerned** with **emergency preparedness**. For example, it is my understanding that the Department of Defense has **weighed** in before the New York **State Public Service** Commission on the potential that **BPL** has to **cause** serious interference with both wired and wireless **communications systems**.

I **am** also concerned **about information** brought to my **attention** that indicates that there is lax enforcement of FCC **rules at** the experimental BPL system **operated** by Ambient Corporation in **Briarcliff Manor**. Significant evidence **presented to me and my committee indicates that Ambient, Consolidated Edison** (the sponsor of the Ambient BPL experiment), and the FCC itself have been **unresponsive to complaints** of harmful interference to the Amateur Radio service for over the past *three* years.

Since March 31, 2004, Mr. Alan **Crosswell**, the Radio **Officer** appointed by the Westchester **County Department** of Emergency Services, has **been making complaints** to Ambient, **Consolidated Edison**, and the FCC **concerning harmful interference** to the Amateur Radio service **caused** by the Briarcliff Manor BPL **experiment**. The ARRL was **brought** in with its national laboratory manager, Ed Hare coming to Westchester for **numerous tests** in **the numerous ARRL complaints** before **the** Commission **concerning harmful** interference to **amateur radio frequency** bands.

I was **gratified to learn** of recent developments at the Briarcliff Manor BPL site in June on the eve of the expiration of the **current experimental** license. I am **concerned**, however, to have recently **learned** that Ambient **may** be planning to request a renewal of its **experimental** program without making vitally important improvements in its technology. I have also learned that, **while** certain **offending equipment has only recently** been removed **after** years of complaints, **there** is no **assurance** that Ambient **may not** "turn up the power" and **again exceed** emissions levels causing **interference** again **after a** license renewal.

At a meeting held by my **committee** on March 5, 2007, we met with representatives of **Consolidated Edison** and the New York **State's Public Service** Commission, **about this issue**. At that time the representative **from Consolidated Edison** agreed **to** work with the ARRL to resolve the communications **interference** problems. That **cooperation has yet to take place**.

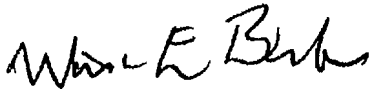
I am thus requesting that the FCC not renew the **experimental Briarcliff Manor** BPL license until **my concerns about harmful interference are adequately addressed**.

The Commission should require that Consolidated Edison and Ambient cooperate with the ARRL and its BPL technical experts forthwith. This would involve inviting the County's RACES Radio ~~Officer~~ (Alan Crosswell) and/or those he designates (for example, the AARL) to attend the measurement sessions that a BPL provider is to conduct. This would include both the current experimental system as well as any future or "second generation" technology.

Westchester County needs to be "in the process." By not renewing the Ambient experimental license until all these concerns are addressed, the FCC can make it clear that complaints concerning harmful interference are taken seriously. That is the best way for the FCC to promote a new technology while protecting public safety in Westchester County.

Thank you for your consideration of the above.

Sincerely yours,

A handwritten signature in black ink, appearing to read "William E. Burton". The signature is fluid and cursive, with the first name "William" and last name "Burton" being the most legible parts.

William E. Burton,
Chairman, Public Safety and Security Committee,
Westchester County Board of Legislators

CERTIFICATE OF SERVICE

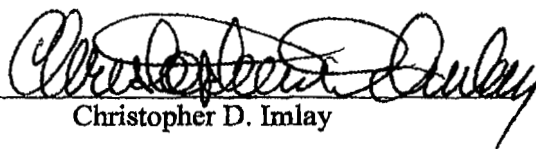
I, Christopher D. May, do hereby certify that I caused to be mailed, via first class U.S. Mail, postage prepaid, a copy of the foregoing INFORMAL OBJECTION, to the following, this 25th day of July, **2007**.

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Christopher D. Imlay

* denotes courier delivery