

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

In re Application of)	
)	
AMBIENT CORPORATION)	File No. 0132-EX-AR-2007
Application for Renewal of Radio Station)	WD2XEQ
Authorization Under Part 5 of the)	
Commission's Rules)	

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 authorization² 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. Burden, 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

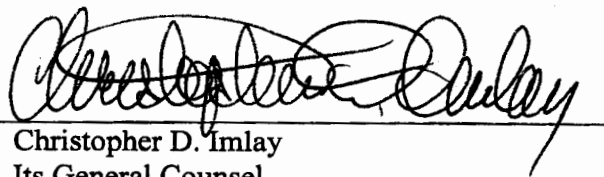
Ambient Corporation for its BPL operations in Briarcliff Manor, New York and in other locations in the United States where it may be operating BPL systems.

Respectfully submitted,

ARRL, the National Association For Amateur Radio

225 Main Street
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By:



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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).

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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.

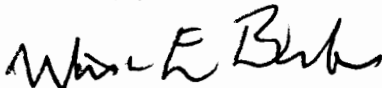
I am thus requesting that the FCC not renew the experimental Briarcliff Manor BPL license until my concerns about harmful interference are adequately addressed.

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 cursive script, appearing to read "William E. Burton".

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

CERTIFICATE OF SERVICE

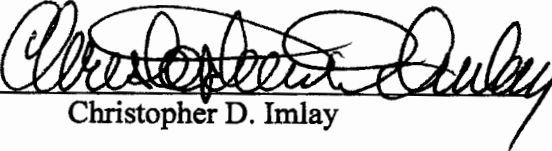
I, Christopher D. Imlay, do hereby certify that I caused to be mailed, via first class U.S. Mail, postage prepaid, a copy of the foregoing INFORMAL OBJECTION, to the following, this 25th day of July, 2007.

George Y. Wheeler, Esq.
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Christopher D. Imlay

* denotes courier delivery