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Via U.S. Mail and Email David.Solomon@fcc.gov Bruce.Franca@fcc.gov James.Burtle@fcc.gov

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> RE: Pending Interference Complaint, Ambient Corporation Broadband Over Power Line System at Briarcliff Manor, New York; Renewed Request for Immediate Cessation of Operation Pursuant to Experimental Authorization WD2XEQ, File No. 0050-EX-ML-2003.

## Gentlemen:

This office, on behalf of ARRL, the National Association for Amateur Radio, also known as the American Radio Relay League, Incorporated (ARRL), filed on October 12,

2004 a complaint of interference and request for an instruction by the Commission to Ambient Corporation to cease the unlawful operation of a Broadband over Power Line (BPL) trial system located in Briarcliff Manor, Westchester County, New York, on power lines owned and operated by Consolidated Edison. The complaint included technical reports on the result of tests conducted by ARRL. The conclusion reached, which ARRL reiterates, is that this facility, which has been the subject of interference complaints in the recent past, was, and now still is, causing harmful interference to Amateur Radio stations and must be required to cease operation immediately.

This complaint followed two earlier complaints about the same system by an individual Amateur Radio licensee resident in the area, Mr. Alan Crosswell. To date, none of the three complaints has been adjudicated by the Commission, and the system continues to operate. A response to the ARRL complaint dated October 12, 2004 from Ambient Corporation's Chief Engineer, Mr. Yehuda Cern, asserted:

- (1) that since receiving the complaint from Mr. Crosswell, Ambient "focused on mitigating" the interference, installed new modem software, and allegedly improved notching performance;
- (2) that the notching has proven effective in "eliminating" interference on the 14 MHz band, citing Mr. Crosswell's statement that he had "noticed reduction in noise on 14 MHz"; and
- (3) that Ambient had "effectively notched out" its BPL signal "on two other (unspecified) bands." There were measurement data submitted.

Contrary to these rather vague assertions, the Briarcliff Manor BPL system currently (still) causes harmful interference to Amateur Radio communications and it is not compliant with applicable FCC part 15 regulations, including Section 15.5 thereof, or with the terms of the experimental authorization granted by the Commission and currently outstanding. ARRL reiterates its two-month-old request that the BPL facility at Briarcliff Manor, New York be instructed to shut down immediately; and that it not resume operation unless the facility is shown to be in full compliance with Commission rules regarding radiated emissions and with the non-interference requirement of both Section 15.5 of the Commission's Rules and the terms of the experimental authorization.

ARRL has visited the Briarcliff Manor site on several occasions since the complaint was filed, most recently on December 16, 2004. It has also received a report from Mr. Crosswell that the BPL interference to Amateur Radio communications, to the extent it was ever reduced, has now reappeared at high levels, principally on the 14 MHz band. BPL signals in the 14 MHz Amateur allocation were received in a vehicle traveling down North State Road in Briarcliff Manor at levels at least S-9 on a typical Amateur Radio mobile transceiver, using a typical mobile whip antenna mounted on the vehicle. That level of noise is sufficient to preclude virtually all Amateur Radio communications in that most heavily-used frequency band. Video recording of the interference measurements was taken by ARRL staff, and that will be submitted to the Commission

shortly. At the time of this visit by ARRL laboratory staff to the Briarcliff Manor site, the Chief Engineer of Ambient was coincidentally in the area, apparently measuring power line AC noise. ARRL staff offered to provide a ten-minute drive-around demonstration of the BPL interference, but he declined.

The current conditions on North State Road in Briarcliff Manor as of December 16, 2004 in the 14 MHz band are that the BPL noise, precludes or repeatedly disrupts communications with Amateur stations using typical receivers. Interestingly, in the 14 MHz band, driving away on North State Road, the harmful interference was noted at distances of approximately 3/4ths of a mile from the modem. It is not, therefore, a matter of merely driving away from the source of the interference, since it affects wide areas, unlike Part 15 point source radiators.

The Commission has made many allusions to a firm commitment to prevention of interference to Amateur Radio communications from BPL systems, and to enforcement where such occurs. Based on the Commission's complete inaction to date with respect to documented interference complaints at various BPL test sites, this commitment seems vacuous. ARRL demands that this BPL site be shut down immediately, pending compliance determinations, and a demonstration that the system can operate without causing harmful interference. Given the unsupported, and demonstrably false allegations contained in the Ambient October 12, 2004 response to ARRL's interference complaint, the Commission should rescind the experimental authorization as well, and determine other appropriate sanctions against Ambient Corporation.

Kindly address all communications on this subject to the undersigned counsel.

Yours very truly,

Dr. Yehuda Cern, Ambient Corporation cc: 79 Chapel Street, Newton, MA 02458

(via U.S. Mail)

Riley Hollingsworth, Esquire, FCC