

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

**In the Matter of** )  
)  
**Amendment of Part 15 regarding** ) **ET Docket No. 04-37**  
**New Requirements and** )  
**Measurement Guidelines for Access** )  
**Broadband over Power Line** )  
**Systems** )

**To: The Commission**

**June 22, 2004**

**Reply Comments from James L. Spencer**

**To the Reply Comments filed by Tomas A. Brown  
Reply Comment filed May 24, 2004 and available at:**

[http://gulfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=6516185665](http://gulfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516185665)

**And to the Reply Comments filed by David V. Hallidy  
Reply Comment Filed June 21, 2004 and available at:**

[http://gulfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=6516214490](http://gulfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516214490)

Thank you for the opportunity for me to provide Reply Comments regarding NPRM 04-37.

In the referenced documents, Mr. Tomas A. Brown and Mr. David V. Hallidy outline their experience in submitting complaints of harmful interference to the FCC without any acknowledgement, reply or meaningful action.

My experience is similar to that of Mr. Brown and Mr. Hallidy and I would like document this for the record and for your due consideration.

Summary of Reports Submitted to the FCC:

April 5, 2004	*Email to Anh Wride	No Response
April 5, 2004	Email to Alan R. Stillwell	No Response
April 5, 2004	Email to Riley Hollingsworth	No Response
April 5, 2004	Email to James R. Burtle	No Response
April 22, 2004	Email to Anh Wride	No Response
April 22, 2004	Email to Alan R. Stillwell	No Response
April 22, 2004	Email to Riley Hollingsworth	No Response
April 22, 2004	Email to James R. Burtle	No Response
May 17, 2004	Email to Anh Wride	No Response

May 17, 2004	Email to Alan R. Stillwell	No Response
May 17, 2004	Email to Riley Hollingsworth	No Response
May 17, 2004	Email to James R. Burtle	No Response
May 18, 2004	Letter to James R. Burtle	No Response
June 3, 2004	Email to Anh Wride	No Response
June 3, 2004	Email to Alan R. Stillwell	No Response
June 3, 2004	Email to Riley Hollingsworth	No Response
June 3, 2004	Email to James R. Burtle	No Response
June 10, 2004	Email to Anh Wride	No Response
June 10, 2004	Email to Alan R. Stillwell	No Response
June 10, 2004	Email to Riley Hollingsworth	No Response
June 10, 2004	Email to James R. Burtle	Email response, June 14, 2004

\*All Email and Federal mail addresses were as shown on the ARRL website.

#### Detailed History:

1. Daily power-line noise measurements have been made for a number of years as I have worked with Alliant Energy to resolve a number of power-line noise interference issues. I first encountered interference from BPL on March 30, 2004 as part of my normal daily recording of power-line noise levels on the various amateur bands. My March 2004 Noise Status Report, dated March 31, which was sent to the Alliant Energy and to the ARRL made note of the strong BPL interference levels and the source. The ARRL asked that I file this interference report with the FCC in the recommended manner and I did so on April 5, 2004. See Attachment 1.

No response from the FCC was received.

2. On April 22, 2004 I sent a full report on my BPL interference in the format recommended by the ARRL. This included frequencies, interference strength, my physical location with respect to the power lines, and my station equipment. It was sent to Alliant Energy, the FCC and the ARRL. In it I asked Alliant Energy to “correct the interference immediately or shut down the BPL system per Part 15”. See Attachment 2.

No response from the FCC was received.

3. On May 17, 2004 I forwarded to the FCC my complaint of April 22 with the following questions:

“The message shown below was sent to you on (April) 22, 2004. I have not received a confirmation from anyone at the FCC. Did you receive it?

Have I sent it to the correct department within the FCC? If not, can you tell me who to contact and how to contact them?

The harmful interference continues 24-hours a day, seven days a week. FCC

intervention, in accordance with Part 15, is obviously required. How do I go about getting action to be taken soon? The harmful interference makes communication on most amateur bands impossible, except with the strongest signals.”

No response from the FCC was received.

4. On June 3, 2004 I again sent my complaint of April 22 to the FCC asking similar questions.

No response from the FCC was received.

5. On June 11, 2004 I again sent my complaint of April 22 to the FCC.

One response was received from Jim Burtle on June 14, 2004 with the following text:

“Mr. Spencer,  
Thank you for your complaint. We are working with the system operator. Please send all complaints to the system operator in order to give them a operator to resolve them.  
Jim Burtle”

See Attachment 3.

Since all of my complaints had been sent to the “system operator”, Alliant Energy, it is not clear how Mr. Burtle’s response is useful in resolving my complaint.

No other responses were received.

#### Conclusion:

A total of 21 separate complaints were sent to four different departments within the FCC and only one response was received. Harmful interference clearly exists, has been documented and can be demonstrated. It is unclear what set of conditions would enable FCC Enforcement to take the action necessary to stop the interference.

Additional information on this specific case of harmful interference is documented in the report, CEDAR RAPIDS, IOWA, BPL Trial System Radio Frequency Interference Tests. This report filed June 18, 2004 is available at:

[http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=6516214274](http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516214274)

Respectfully submitted,

James L. Spencer, W0SR  
3712 Tanager Dr. NE  
Cedar Rapids, Iowa 52402  
jlscr2@yahoo.com

Attachment 1:

----- Original Message ----- From: "Jim Spencer" <jlscr@mchsi.com> To: <astillwe@fcc.gov>; "Riley Hollingsworth" <rholling@fcc.gov>; <jburtle@fcc.gov>  
Sent: Monday, April 05, 2004 8:57 PM Subject: Fw: Noise Status-March 2004

I was asked to forward this to you by Ed Hare. It the normal monthly Noise Report for March that I prepare to track the progress of Alliant Energy in locating and repairing power line noise. This month in addition to the power line noise I encountered significant interference from the BPL test that was started in my neighborhood on March 30th.

This week I plan to do a more complete spectrum analysis of the BPL interference and I will forward those to you when completed.

Jim Spencer  
3712 Tanager Dr. NE Cedar Rapids, Iowa 52402  
319-393-7353

----- Original Message ----- From: "Jim Spencer" <jlscr@mchsi.com> To: "Ed Hare W1RFI" <W1RFI@arrl.org>; "Mike Gruber" <mgruber@arrl.org> Cc: "Wade Walstrom" <Walstrom@mchsi.com>; "Pat Swift" <PatSwift@alliantenergy.com>; "Jerry Koppenhaver" <JerryKoppenhaver@alliantenergy.com> Sent: Wednesday, March 31, 2004 3:56 PM Subject: Noise Status-March 2004

A summary from my daily readings on 40 meters for March follows:

23 days S9  
2 days S8  
4 day S7  
2 day S6

All of the S6 and S7 readings were during a rain or just after a rain while the hardware was still wet. During those "wet" times the noise on 10 and 15 meters would often go to S0.

The spacer "stars" reported last time have all been replaced and it appears that the noise to West has dropped to below levels from the East. That effort has helped.

The rain has made chasing noise difficult because it seems to coincide with opportunities to chase. When Jerry was here this week a very loud arc-sounding noise was occurring. We managed to locate the general area just East of me on Wenig Rd. but as Jerry tried to

use the beam the noise disappeared. I located it in the same area yesterday but without proper equipment it was not possible to pinpoint the source.

I also located an extremely loud noise at the switch by the Ross residence on Wenig, which is due South of me and along the same lines that go by my house. This switch has caused intermittent noise for years.

When I checked the noise yesterday afternoon I had trouble finding a clear frequency on 21 MHz to take a noise reading. This morning I noted the same problem and similar problems on 14 and 28 MHz. At about 11:30 AM this morning I took more time and scanned all amateur bands. It was terrible with birds (spurious signals) all over the place. These were as loud as 10 db over S9 in places and they rendered 21 and 28 MHz useless and could be a big problem on the other bands depending up frequency. I suspected BPL could be the culprit so I checked some actual BPL recordings on the ARRL web site and as far as I'm concerned, it matches. I talked to the Alliant crew and engineer, Sean Smith, and the representative from Amperion as they were installing another BPL just West of me. I reported my observations and invited them to come and listen at my station. They did not have time but asked me to write down a scan of the bands and give it to them and I agreed to do that. I will try to observe, take readings and make my station available to Alliant the Amperion. They said a commercial scan is planned for April 12.

73, Jim W0SR

ATTACHMENT 2:

----- Original Message ----- From: "Jim Spencer" <jlscr@mchsi.com> To: "Tim VanWeelden" <timvanweelden@alliantenergy.com> Cc: "Riley Hollingsworth" <rholling@fcc.gov>; "Alan R. Stillwell" <Astillwe@fcc.gov>; "Anh Wride" <Awride@fcc.gov>; "James R. Burtle" <Jburtle@fcc.gov>; "Ed Hare WIRFI" <WIRFI@arrl.org> Sent: Thursday, April 22, 2004 9:45 AM Subject: Harmful Interference from BPL-2

Resent to correct an email address.

Tim VanWeelden  
Alliant Energy  
1001 Shaver Rd. NE Cedar Rapids, IA 52402

Dear Tim:

Thank you for allowing me to participate in your test of the Amperion BPL system in NE Cedar Rapids. My location, station quality and experience as an electrical engineer for over 40 years and Amateur Radio operator for over 50 years has yielded very worthwhile information about the effects of a possible BPL deployment on other services using the High Frequency bands.

Your BPL installation is causing extremely harmful interference to my station on most amateur frequency bands and it makes normal communication impossible. BPL, a Part 15 device as defined in the FCC Regulations, is prohibited from interfering with other services licensed by the FCC. Now that your tests are completed, I ask that you correct the interference immediately or shut down the BPL system per Part 15 of the Regulations.

I started receiving serious levels of interference on March 30 when your BPL equipment was first installed. It has continued 24 hours a day since the 30th except for a few test shut downs. I have confirmed the interfering frequencies with Tom Luecke of Amperion. I've also demonstrated the problem to Alliant employees. Alliant and the Nebraska Center for Excellence in Electronics visited my station on April 15 to record BPL levels. They were able to observe the strong levels of interference and to note that when the BPL was shut down, all of this interference disappeared.

The Amperion representative has provided me with a listing of the amateur frequency bands which he had notched when the system was installed. This includes the 20, 17, 15, 12 and 10 meter bands. However, I'm still receiving significant interference in those amateur bands and additionally in the 30 and 40 meter bands. The notching is ineffective in alleviating the harmful interference that I'm experiencing.

I again offer to demonstrate to any in Alliant management, or other Alliant employees, the extreme interference caused by BPL to my licensed Amateur Radio operation. I've also offered to help run susceptibility tests to determine what impact operation of a licensed Amateur Radio station might have on a customer using BPL for an Internet connection.

Below, in a standardized format prepared by the American Radio Relay League, is a report on the harmful interference I am receiving. I can supply more details on the interference or actual recordings if that would be helpful.

Sincerely,

James L. Spencer

#### Report of Harmful Interference from a Broadband Over Power Line Trial

Name of complainant: James L. Spencer

Call sign: W0SR

Station location: 3712 Tanager Dr. NE, Cedar Rapids, Iowa 52402

Telephone: 319-393-7353

Email: jlscr2@yahoo.com

Description of Interference: Extremely strong carriers with some modulation occurring throughout the amateur bands, often occurring less than every 2 KHz. The frequencies shift some with time but are generally on the low end of the 10 meter band, throughout the 12, 15, 17 and 40 meter bands. Interference can on the 20 and 30 meter bands seems to change although at times has been extremely strong.

Description of station: Icom IC-765, Icom IC-735, Kenwood TL-922A Power Amplifier (1000 watts), Alpha 76 PA Power Amplifier (1500 watts)

Receiver(s) affected: IC-765, IC-735

Antenna type: 1. TH7DXX rotary beam; 2. Inverted Vee's for 75 and 40 meters; 3. HF-2V Vertical for 80 and 40 meters; 4. rotary dipole for 30, 17 and 12 meters; 5. Inverted L for 160 meters

Antenna location: Tower is located about 80 feet from street in backyard.

Distance of antenna from own house (feet): 4 feet

Distance of antenna from neighboring houses (feet): approximately 30 feet

Distance of antenna from power distribution line or equipment: Antenna is about 50 feet from distribution line, about 500 feet from nearest BPL unit.

Log of interference

I have picked one typical day for this report although I've recorded information for many days. This interference is on full time as I stated above.

Date: 4-17-04

Time 10:50 to 11:22 AM

The interference consists of carriers spaced approximately every 2 KHz. as noted above.

Frequency: 40 meters (7.0 to 7.3 MHz) Mode: CW/SSB Interfering Signal Strength: S8 to S9

Frequency: 30 meters (10.1 to 10.150 MHz) Mode: CW Interfering Signal Strength: S6 to S8

Frequency: 20 meters (14.0 to 14.350 MHz) Mode: CW/SSB Interfering Signal Strength: S5 to S7

Frequency: 17 meters (18.068 to 18.168 MHz) Mode: CW/SSB Interfering Signal Strength: S9

Frequency: 15 meters (21.0 to 21.450 MHz) Mode: CW/SSB Interfering signal Strength: S8 to S9

Frequency: 12 meters (24.890 to 24.990 MHz) Mode: CW/SSB Interfering Signal Strength: S7 to S9

Frequency: 10 meters (28.0 to 28.4 MHz) Mode: CW/SSB Interfering Signal Strength: S7 to S8

ATTACHEMENT 3:

----- Original Message ----- From: "James Burtle" <James.Burtle@fcc.gov> To: "Jim Spencer" <jlscr@mchsi.com> Sent: Monday, June 14, 2004 7:56 AM Subject: RE: REQUEST ACTION

Mr. Spencer,

Thank you for your complaint. We are working with the system operator. Please send all complaints to the system operator in order to give them a operator to resolve them.

Jim Burtle

-----Original Message----- From: Jim Spencer [mailto:jlscr@mchsi.com] Sent: Friday, June 11, 2004 12:25 AM To: James Burtle; Alan Stillwell; Anh Wride; Riley Hollingsworth Cc: Wade Walstrom; Ed Hare WIRFI Subject: REQUEST ACTION

Dear FCC:

The message shown below was sent to you on (April) 22, 2004, on May 17, 2004 and again on June 3, 2004. I have not received a confirmation from anyone at the FCC. Did you receive it?

Have I sent it to the correct department within the FCC? If not, can you tell me who to contact and how to contact them?

Your reply will be appreciated.

Sincerely,

James L. Spencer

LETTER SENT (APRIL) 22, 2004

Tim VanWeelden  
Alliant Energy  
1001 Shaver Rd. NE  
Cedar Rapids, IA 52402

Dear Tim:

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over 40 years and Amateur Radio operator for over 50 years has yielded very worthwhile information about the effects of a possible BPL deployment on other services using the High Frequency bands.

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