

FHH Telecom Law
November 2006

ARRL Looks For Short Circuit
From the D.C. Circuit

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An organization of amateur radio operators has asked the U.S. Court of Appeals for the D.C. Circuit to review the FCC's rules on Broadband over Power Line (BPL).

This is hardly the first time the amateurs have spoken out against BPL. Along with their association, the Amateur Radio Relay League (ARRL), amateurs filed about 7,000 comments against BPL during the FCC's rulemaking. Virtually all of those claimed BPL would cause harmful interference to amateur operations. Some of the comments included well-reasoned engineering studies. Many more were cut-and-paste jobs from the ARRL website. And a handful expressed hostility toward BPL in terms that went beyond reasoned argument.

BPL uses radio-frequency signals to conduct broadband data along power lines. The amateurs insisted that much of this energy would leak off, transforming a city's power system into a huge antenna that would shut down amateur reception over many square miles. BPL proponents countered that only an insignificant amount of energy would leak, and gave the FCC data showing effects only a few feet around each BPL-equipped power pole.

The FCC agreed with the industry that extensive interference was unlikely, but nonetheless instituted protective measures. Among other precautions, a BPL provider must publicize the locations of its installations and the frequencies it uses, and must provide a point of contact for reporting interference. It must also have the capability to remotely turn down any frequencies on which interference does occur and, if that does not fix the problem, must shut off the offending unit.

That was not enough for the amateurs, who asked the FCC to rescind the rules pending further tests. The BPL industry generally defended the rules, but asked for certain changes. The FCC said no to most of the requests from both sides.

Now, having run out of options at the FCC, the ARRL has asked the federal appeals court in the District of Columbia to overturn the rules. The ARRL's single court filing so far does not say exactly which rules it challenges. But a news release on the ARRL website does. And the two rules mentioned there address only a small part of the issues the amateurs have raised in connection with BPL.

One of the rules cited is highly technical: a mathematical correction for measurements of

radio-frequency signals taken at various distances from the power line. The other rule says that BPL providers need only turn down particular frequencies by so much, and need do no more, in responding to complaints of interference into mobile amateur equipment – even if those measures do not fully resolve the problem.

There is a strong legal presumption as to both rules that the FCC got it right. The applicable precedents require the court to uphold the FCC so long as it followed the correct procedures, and its result is not irrational.

On the technical point, the ARRL calls the FCC “clearly, demonstrably and inarguably wrong.” But the FCC can be wrong and still win, so long as it reached its wrong result by the right methods and has some minimal justification in the record. After all, this is an engineering question, and the court has no engineers. The most it can do is to send the question back to the FCC for a second look. In the end, it will almost certainly defer to the expertise of the agency that Congress created to make just these decisions.

The ARRL has a more specific challenge to the rule that limits a BPL provider’s obligation to correct interference to a mobile amateur operator. Long-standing law prohibits an agency like the FCC from adopting a rule without first giving public notice of the proposed rule and an opportunity to comment. The ARRL says this particular rule came without the required notice, and so is invalid. But the courts allow adoption of a rule that is different from the rule proposed, so long as it is a “logical outgrowth” of the proposal. Here, too, the agency gets the benefit of the doubt. And even if it loses, for the FCC to formally propose the rule, receive comment, and re-adopt the rule would take just a few months.

The ARRL has indicated it may also question this rule as running counter to a long-established principle at the FCC: ordinarily a licensed operator, such as an amateur, is entitled to protection from “harmful interference” caused by an unlicensed service such as BPL. For non-public-safety services, such as amateur radio, harmful interference is defined as that which “seriously degrades, obstructs, or repeatedly interrupts” communications. This language suggests that a BPL provider need not correct interference that is only minor or transitory.

Mobile amateur operations use smaller antennas than most fixed installations, so their reception is generally not as good. The FCC decided that an incoming amateur signal weak enough to be affected by a BPL device, after the device has been turned down, would probably be unreliable even in the absence of BPL, and hence is not be entitled to protection. Besides, said the FCC, a mobile operator receiving interference can just move away from the power line. ARRL may try to argue that the FCC has misconstrued the term “harmful interference.” But here, again, the court is likely to give the FCC considerable deference on how to interpret its own rules.

Although the official order does not say so, the FCC may feel this rule is necessary to the commercial viability of BPL. Some amateurs have made clear that they are vehemently opposed to BPL as a matter of principle. The FCC may fear that some of those licensees

might drive around looking for BPL interference to report, in hopes of shutting down the BPL system one pole at a time.

In the end, the ARRL has only limited prospects for success on the two issues that make up the announced target of its appeal. And while the appeal proceeds, BPL providers continue to offer service and build out systems. No plausible outcome of the case is likely to change that.

Meanwhile, back at the FCC, the Commission issued a ruling clarifying that BPL – including the underlying transmission function – is an “information service” (rather than a telecommunications service). This puts BPL on the same footing as DSL and cable modem service as being exempt from common carrier regulation. In other words, a consumer having complaints about BPL service cannot look to the FCC for a sympathetic ear, but instead has the option of signing up for cable or DSL service instead. And *vice versa*.