

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington D.C. 20554

In the matter of: )  
 )  
Digital Audio Broadcasting Systems ) MM Docket No. 99-325  
And Their Impact on the Terrestrial )  
Radio Broadcast Service )

REPLY COMMENTS OF

**Edgar C. Reihl, P.E.**

I hereby file the following reply comments in the above matter as a member of the American public and as a broadcast engineer with many years of experience in both small and major market AM and FM radio facilities. In this proceeding, the Commission requested comments on a proposal by iBiquity Digital Corporation for a blanket increase in the digital power level of FM stations operating in the Hybrid Digital mode. As many of the comments filed in this proceeding have stated, granting a blanket power increase at this time before interference studies have been completed would be extremely unwise. It would materially jeopardize the quality of service that the American public expects and deserves. In fact, the presently authorized power level has already caused significant interference to many stations resulting in lost listeners, and more importantly, limiting program choices and depriving members of the public of the ability to receive stations that they want to hear. The fact that the Commission has not received many complaints of interference from the general public should not be viewed as an indication that such interference does not exist. Rather, it is largely due to the fact that digital sideband interference manifests itself as a higher noise level that the untrained observer assumes is simply due to a weak signal, as correctly pointed out in comments by noted broadcast engineer Barry D. McLarnon, P. Eng.<sup>1</sup> Furthermore, when they have been reported, complaints of IBOC interference have been generally ignored by both the Commission and the interfering stations themselves.<sup>2</sup>

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<sup>1</sup> See reply comments of Barry D. McLarnon, P. Eng. filed July 17, 2009 at page 2.

<sup>2</sup> A notable example of this is the interference caused by station WBZ to station WYSL.

The American public has not rushed to embrace HD radio, and for good reason. At its best (i.e., with a single HD1 channel), it offers audio quality that is only marginally better than analog FM, while suffering from the “all or nothing” digital “cliff effect” that renders mobile reception very problematic. Digital TV broadcasting provides viewers with many obvious benefits, including High Definition video. But, as the Commission is well aware, many DTV viewers are finding that they have now “fallen off the cliff” and no longer can receive stations they used to be able to receive in analog with a satisfactory signal. HD radio is not in any sense a “High Definition” aural service, despite the public’s association of “HD” with that term. It is also by no means as robust as analog FM, and it is not at all clear that “jacking up” the power will solve HD radio’s problems. However, the real issue is the lack of a compelling business model—either for the industry or the public—to adopt this technology.

iBiquity Digital promised the Commission that the implementation of IBOC transmission in the AM band would not cause harmful interference, but by now it is abundantly clear that this is untrue. At the same time, AM IBOC reception is extremely unreliable even at short distances from a 50,000 watt transmitter. It is becoming increasingly clear that the AM IBOC system is a colossal failure. Now iBiquity would like the Commission to grant a ten-fold increase in the digital sideband power on the FM band, without waiting for important technical studies to be completed. Adopting such an increase will almost certainly hurt many smaller, low power stations by significantly reducing their coverage areas as a result of interference from high power stations. It will also hinder the opportunities for Low Power FM stations to improve diversity and localism. It will be particularly problematic for many low power educational non-commercial stations in the reserved band, which are closely spaced on adjacent channels in most large metropolitan areas.

The IBOC system ought to have been called IBAC, because it really amounts to In Band Adjacent Channel transmission. The AM radio band has already been effectively “trashed” by interference from IBOC transmissions. This must not be allowed to happen to the FM band. The Commission must wait for technical studies to be completed, and must refrain from granting any across-the-board power increase at this time. If and when a power increase is reconsidered, it should be

applied on a case-by-case basis. Otherwise, the American public will be adversely affected for years to come.

Respectfully submitted,

by ECFS

Edgar C. Reihl, P.E.

July 17, 2009