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November 18, 2009

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

RE: MM Docket No. 99-325

Dear Ms. Dortch

The undersigned gratefully acknowledges the endorsement by the "Joint Parties" of the November 5, 2009 proposed agreement by and between iBiquity Digital Corporation and National Public Radio, Inc. pertaining to a compromise interim digital power increase for IBOC FM with restrictions and conditions designed to reduce or eliminate an increase in interference to existing analog FM services. The undersigned concurs with this proposed agreement and endorsements.

The undersigned does not agree with certain opinions expressed by the "Joint Parties" regarding processing of complaints of interference arising from increased digital power level of IBOC FM stations. It has been proven, through tests by NPR Labs and observation by thousands of FM listeners, that interference to analog FM radio is dependent on many factors, including the characteristics of the listener's receiver and on the integrity of the analog signal being received as well as properties of a signal that may be a source of interference. Interference cannot be disclaimed by a simple formula nor eliminated by a universal remedy. The average listener will not complain about interference that does not exist.

In connection with the establishment of FM translator service, the Commission adopted an excellent policy for determination of harmful interference to licensed FM stations by newly authorized translators. If three or more listeners within a common area complain of interference to a licensed FM station by a translator, the licensee of the translator must correct the problem or cease operation. This same policy should prove effective if applied to digital interference to adjacent channel analog FM stations. A remedy may consist of changes to the interfering digital signal, or to the analog signal receiving interference, or to a listener's FM radio or stereo system. Unless otherwise agreed by the parties, all costs for correction of interference will be paid by the licensee of the digital FM station. (This assumes that interference occurred when digital transmission commenced, or when the IBOC FM station increased digital power per the subject agreement.)

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In its forthcoming decision on behalf of the broadcast industry, members of the Federal Communications Commission should give consideration to this proposed compromise as well as the report of November 3, 2009 by National Public Radio (Advanced IBOC Coverage and Compatibility Study). **The Commission should also take note of the fact that some IBOC FM stations have resolved the digital coverage and interference issues under discussion with no increase in digital power through use of an improved FM transmitting antenna that is available to all FM stations without any change of rules.**

The FM antenna described herein is similar in most respects to a conventional FM transmitting antenna, being unique only in the elevation profile of its radiation pattern. Its azimuth pattern may be a uniform circle, or a directional pattern to comply with requirements of a specific station license. Likewise, polarization may be horizontal, vertical, or circular, as dictated by the station license. While the elevation pattern of most FM broadcast antennas consists of a series of lobes and nulls, the SINGLE LOBE ANTENNA radiates almost all of its energy in a single vertical lobe on the horizon. *The original purpose of this design was reduction of RF radiation (RFR) and RF interference (RFI). It has also proven very effective for elimination of multipath, thereby improving both signal quality and coverage. When used for transmission of IBOC hybrid signals it maintains a constant relationship in level between analog and digital signals, with none of the large excursions in signal strength typical of most FM stations. This improves digital coverage and reduces digital interference to adjacent channel analog signals.*

In light of the current condition of the national economy, and the broadcast industry in particular, cost must be a consideration regarding any proposed technical changes or improvements to be undertaken in the near future by most radio stations and group owners. For the estimated 15 percent of stations that invested in IBOC equipment, additional costs for changes to "make it function as promised" will be very painful. Most of the proposed changes, including single frequency networks, asymmetrical sidebands, and the digital power increase, may double the cost of the digital conversion, and still not resolve the problems. Stations purchasing equipment for the first time may save part of that expense.

The Single Lobe FM antenna described in this paper costs more than a common, "off-the-shelf" antenna, particularly if it incorporates the recommended "Site Specific Engineering", but it will always be far less expensive than any of the other changes described in the paragraph above. Moreover, the Single Lobe Antenna will resolve the digital coverage and first adjacent analog interference problems better than any other proposed solution.

Respectfully submitted, *Leroy C. Granlund*