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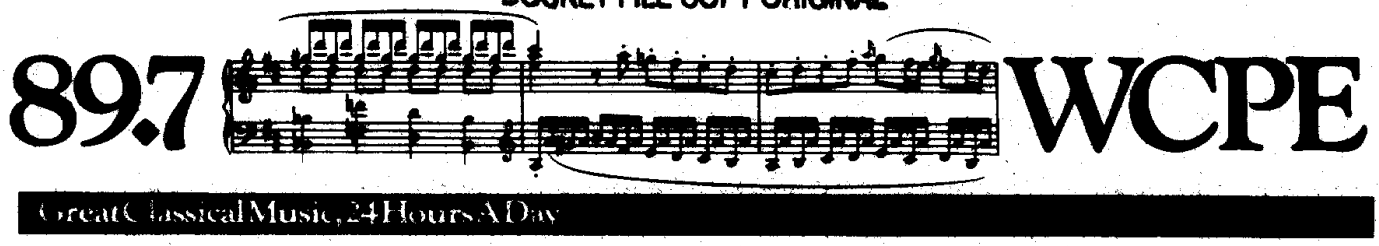

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June 14, 2004

Secretary Marlene H. Dortsch, Esq.
Office of the Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Dear Ms. Dortsch,

Enclosed are our reply comments in the matter of "Digital Audio Broadcasting Systems and their Impact on the Terrestrial Radio Broadcast Services", MM Docket No. 99-325, Further NPRM and NOI, dated April 20, 2004

A copy for your file stamp, and a self-addressed stamped envelope is included.

Also included is a diskette copy of the material.

Thank you for your assistance. If you need any information concerning this submission, please feel free to contact me.

Sincerely,

Deborah S. Proctor
General Manager

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of:	)	
"Digital Audio Broadcasting Systems and their	)	
Impact on the Terrestrial Radio Broadcast Services"	)	MM Docket No. 99-325
Further NPRM and NOI	)	April 20, 2004

Comments of Educational Information Corporation d/b/a WCPE Radio

It has been determined by the Commission that it is acceptable for a licensed auxiliary antenna to be used to broadcast a digital FM signal without further approval from the Commission if the licensed auxiliary antenna is located on the same tower as the main antenna, or be located on a nearby tower. The Commission has asked for further comments concerning ways to speed the implementation of digital audio broadcasting systems.

Horizontal and Vertical Separation of Antennas

As long as the auxiliary antenna is located at a height equal to between 70% and 100% of the height of the main antenna, and within three seconds of latitude and longitude, then the Commission considers the effective centers of radiation to be close enough not to cause any problems with disparate signal strengths of the analog and digital signals.

We propose that a slight relaxation of the distance between the main and licensed auxiliary antennas can be allowed as the horizontal distance between the towers decreases. This is because it is more properly the total distance between the antennas which is of concern, rather than separate and independent vertical and horizontal distances.

Therefore, as the auxiliary antenna is located horizontally closer to the main antenna, we propose that the Commission should allow a greater vertical separation between the two antennas, as in the limiting case, antennas located on the same tower are more optimal than antennas located on different towers: the ideal situation is radiation from a single point; the next best situation is two radiation centers along a vertical line; and finally, radiation centers separated horizontally and vertically within about 100 meters is acceptable.

Therefore, because it is the absolute distance between the antennas which is of concern, we propose that the 70% limit for the height of the licensed auxiliary antenna can be routinely be relaxed as the horizontal separation between the two antennas decreases, as follows:

Both the main antenna and the auxiliary antenna are licensed to operate non-directionally; and,

70% to 100% of the height of the main antenna if the horizontal separation between the two supporting structures is greater than 2 but less than 3 seconds; or,

65% to 100% of the height of the main antenna if the horizontal separation between the two supporting structures is greater than 1 but less than 2 seconds; or,

60% to 100% of the height of the main antenna if the horizontal separation between the two supporting structures is greater than 10 meters but less than 1 second; or,

55% to 100% of the height of the main antenna if both antennas are located on the same supporting structure and have less than 10 meters horizontal separation between their centers of radiation; provided, that the supporting structure be essentially transparent to the emissions of the auxiliary antenna.

(Examples: A main antenna located atop a building, with an auxiliary antenna located on the side of a building, would NOT meet the requirement of this paragraph, whereas a main antenna in a candelabra arrangement at the top of a tower, with the licensed auxiliary antenna side mounted on the tower within 10 meters vertically and at 55% of the height of the main antenna, would meet these requirements. Note: We do not feel comfortable to address the situations involving directional antennas as there can be many variables associated with directional arrays.)

We further propose that the effective radiated power of the digital signal may be increased as the height of the licensed auxiliary antenna is decreased such that the field strength of the digital signal at the protected contour of the analog signal would be equal to the same value which would exist if the height of the auxiliary antenna was the same as the main antenna.

Within these limitations, we offer that a licensed auxiliary antenna should be routinely allowed to transmit the digital signal without further authority of the Commission. Because the item of concern is the absolute distance between the main antenna and the licensed auxiliary antenna, by allowing a slighter greater vertical separation as the horizontal separation decreases, the Commission will give more flexibility to broadcasters with existing systems, while preserving equivalent limits of separation already proposed by the Commission.

Multicasting

We propose that, in order to speed the transition to digital, the well-tested practices, rules, and regulations related to analog subcarriers on FM broadcast -- including rules regarding station identification, record keeping, number of subcarriers, and such -- be paralleled in the new rules for digital broadcasting. These rules and practices have withstood the test of time, and should be transparent in the transition to digital.

Conclusion

As the Commission gives flexibility to broadcasters allowing more stations to adapt to digital with existing towers and antennas, and as the Commission allows the tried and tested rules and practices of analog audio broadcasting to transition in parallel to digital broadcasting, the Commission sets the stage for the transition to come more quickly, more smoothly, and more efficiently.

Respectfully Submitted,

Deborah S. Proctor, BSEE, CPBE

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JUN 14 2004