

**APPLICATION FOR STATION LICENSE**  
**CUMULUS LICENSING LLC**  
**WTWR-FM RADIO STATION**  
**CH 252A - 98.3 MHZ - 3.4 KW (DA)**  
**LUNA PIER, MICHIGAN**  
**February 2007**

**TECHNICAL STATEMENT**

This Technical Statement was prepared on behalf of Cumulus Licensing LLC ("Cumulus"), licensee of radio station WTWR-FM, Channel 252A, Luna Pier, Michigan. Cumulus has an outstanding permit to make minor changes in the facilities of WTWR-FM (BPH-20061221ACL).<sup>1</sup> Cumulus herein submits a license application to cover the outstanding permit. It is requested that the Commission review this submission and authorize full power operation for WTWR-FM. A calculation of the transmitter power output of the WTWR-FM transmitter is attached as Exhibit A.

There are six operating conditions/restrictions on the WTWR-FM permit. The first condition states that Cumulus will reduce the power of WTWR-FM, or cease operation as needed, to insure that persons with access to the tower will not be exposed to radio frequency radiation levels in excess of the Commission's guidelines. Cumulus will comply with this requirement. The second condition states that the WTWR-FM permit was granted pursuant to §73.215 of the rules. Cumulus acknowledges this condition.

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1) The minor change altered (reduced) the envelope pattern of the WTWR-FM antenna system. The presently licensed antenna (measured), authorized under BLH-20030328ASE, fits within the reduced pattern. No actual change to the operating antenna was made. Therefore, the proof and certifications are those originally submitted in BLH-20030328ASE.

The next four conditions relate to the use of a directional antenna system for WTWR-FM. Attached as Exhibit B is an antenna proof of performance from Dielectric Communications (“Dielectric”), the manufacturer of the WTWR-FM antenna system, demonstrating the compliance of the antenna system with the requirements and limits contained in the permit. The measured pattern (composite of horizontal and vertical) is within 85% of the envelope pattern submitted with the construction permit application. Further, attached as Exhibit C is a statement from an engineer that the antenna was assembled and installed in accordance with Dielectric’s specifications. Finally, attached as Exhibit D is a verification from a Land Surveyor that the antenna is oriented as specified by Dielectric.<sup>2</sup> Further, as detailed in Exhibit B, the power of WTWR-FM at 230° and 240° is below the required limits; the relative field at 230° is 0.260, a power level of 0.230 kilowatt (horizontal), and a relative field of 0.162 or 0.089 kilowatt (vertical); the relative field at 240° is 0.261, a power of 0.232 kilowatts (horizontal), and a relative field of 0.146 or 0.071 kilowatt (vertical).

Based on the foregoing, it is believed that WTWR-FM is operating in compliance with the Commission’s rules and that all conditions have been met.

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2) 90.0° true orientation.