

**APPLICATION FOR STATION LICENSE**  
**REQUEST FOR FULL POWER PROGRAM TEST**  
**NOORDYK BROADCASTING, INC.**  
**WSHN-FM RADIO STATION**  
**CH 261A - 100.1 MHZ - 2.9 KW (DA)**  
**HOLTON, MICHIGAN**  
**November 2004**

**TECHNICAL STATEMENT**

This Technical Statement was prepared on behalf of Noordyk Broadcasting, Inc. ("NBI"), licensee of radio station WSHN-FM, Channel 261A, Holton, Michigan. NBI has an outstanding permit to relocate WSHN-FM to a new site (BPH-20010921AAB). This instant application seeks a license to cover the permit. It is noted that the WSHN-FM permit specifies the use of a directional antenna system. As such, NBI is operating WSHN-FM at half power, while waiting for approval from the Commission to operate at full power. As such, full power program test has not yet begun. Attached, as Exhibit A, is a calculation of the transmitter output power for the WSHN-FM transmitter.

There were five special operating conditions/restrictions listed on the WSHN-FM permit. The first four conditions all relate to the use of a directional antenna for WSHN-FM. Attached as Exhibit B is an antenna proof of performance from Electronics Research, Inc. ("ERI"), the manufacturer of the new WSHN-FM antenna system, demonstrating the compliance of the antenna system. Attached as Exhibit C is a statement from an engineer that the antenna was assembled and installed in accordance with ERI's specifications. Finally, attached as Exhibit D is a verification from a Land Surveyor that the antenna is oriented at 270° true.

Further, as detailed in Exhibit B, the power of the facility in the null from 120° to 150° is at or below the required 1.45 kilowatt limit. The RMS of the actual measured pattern (based on the greater of the horizontal or vertical field for each azimuth) is 88.4%. The original envelope pattern, as submitted with the application for permit, has a calculated RMS of 96.5%. As such, based on the measured envelope pattern, the RMS is within 85.0% of the envelope.

The final condition relates to radio frequency radiation limits at the site. NBI herein restates that it will, in cooperation with other tower users, reduce the power of WSHN-FM or cease operation, as necessary, to insure that persons having access to the tower will not be exposed to radio frequency electromagnetic fields in excess of the FCC's guidelines.