

TECHNICAL STATEMENT  
NOTIFICATION OF  
-14 dBc (4%) DIGITAL POWER FOR  
STATION WIYY (FACILITY ID 65693)  
BALTIMORE, MARYLAND  
CH 250B 13 KW ANALOG, 0.52 KW DIGITAL

This Technical Statement was prepared on behalf of Hearst Stations Inc, licensee of FM Broadcast Station WIYY, Baltimore, Maryland, in reference to initiating digital IBOC emissions at -14 dBc (4% authorized analog power), pursuant to the FCC *Order* in MM Docket No. 99-325, released: January 29, 2010. Station WIYY is currently licensed for non-directional analog operation with 13 kilowatts effective radiated power (ERP) and an antenna height above average terrain (HAAT) of 294 meters.\*

- The applicant requests authorization for -14 dBc (4% analog or 0.52 kW) pursuant to the procedures outlined in the FCC *Order*.
- The technical contact information for WIYY is as follows:

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- Station WIYY proposes -14 dBc digital IBOC operation using common amplification mode. There will be no changes to its antenna or transmission system.
- The analog transmitter power output for WIYY is 25.152 kW. The proposed digital transmitter power output will be 1.006 kW. Considering all system losses and

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\* See FCC File No. 0000126269.

antenna gain, the nominal non-directional analog effective radiated power is 13 kW and the nominal non-directional digital effective radiated power will be 0.52 kW.

- The applicant certifies that the proposed digital operation will comply with the technical specifications set forth in the FCC *Order*.
- RFR Compliance: The WIYY analog and digital operations were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public based on the FCC's FM Model software. An ERI model 1183-2CP-SP, 2-bay,  $\frac{1}{2}$  wavelength spaced panel antenna is mounted at the 282 meter level on the existing tower. The total analog plus digital ERP is 27.04 kW (horizontal and vertical polarization). Figure 1 depicts the output of the FCC's FM Model program. As indicated, a maximum power density of 1.37 uW/cm<sup>2</sup> will occur at a point located 442 meters from the tower. This is only 0.68% of the FCC's recommended limit of 200 uW/cm<sup>2</sup> for FM frequencies for an uncontrolled environment. Thus, it is believed that WIYY combined analog and digital operation is in full compliance with the FCC's requirements with regard to radio frequency radiation exposure. Access to the transmitting site will be restricted and appropriately marked with RFR warning signs. Furthermore, a protocol will be in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing accepted RFR protective clothing and/or RFR exposure.



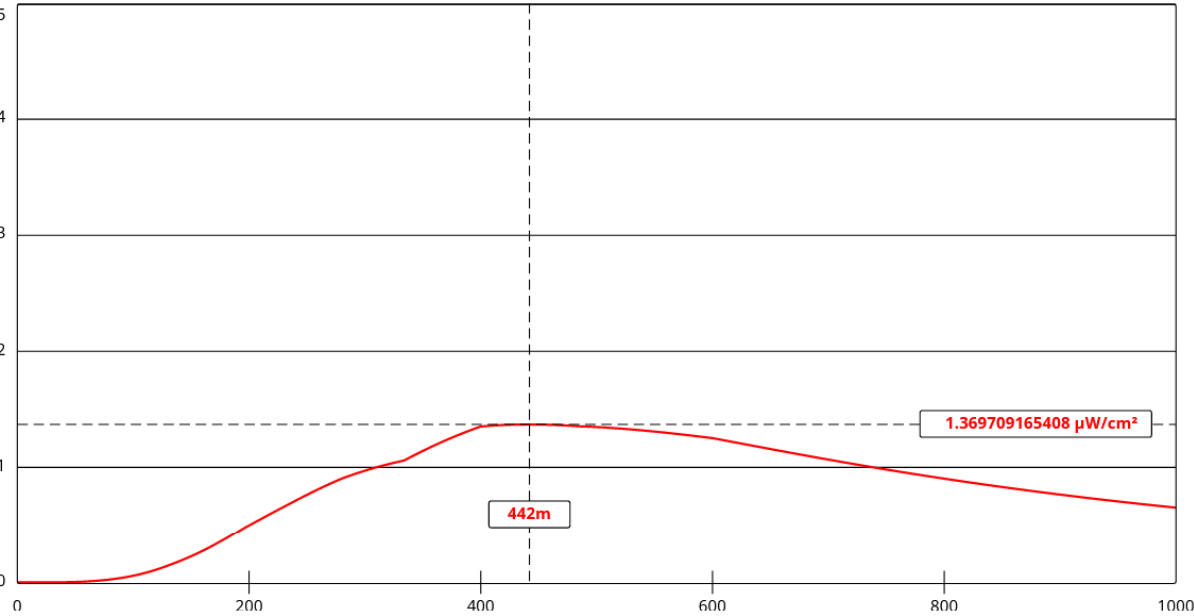
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December 10, 2020

Figure 1

FM Model Output:



View Tabular Results +

Channel Selection	Channel 250 (97.9 MHz) ▾		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other" ▾		
Height (m)	<input type="text" value="282"/>	Distance (m)	<input type="text" value="1000"/>
ERP-H (W)	<input type="text" value="13520"/>	ERP-V (W)	<input type="text" value="13520"/>
Num of Elements	<input type="text" value="2"/>	Element Spacing (λ)	<input type="text" value="0.5"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	