

**APPLICATION FOR STATION LICENSE**  
**COMMONWEALTH BROADCASTING, L.L.C.**

**WUSH RADIO STATION**  
**CH 291B1 - 106.1 MHZ - 11.0 KW**  
**POQUOSON, VIRGINIA**

**May 2009**

**EXHIBIT A**

**WUSH Transmission System Calculations**

Effective Radiated Power:	
Horizontal/Vertical	11.0 kilowatts (H/V)
Antenna:	Shively Labs 6814-4-SS 4 bay half wavelength spaced
Horizontal gain	1.31
Transmission Line:	Andrew HJ8-50B
(493 feet)	3 inch air dielectric 84.8% Efficiency
Transmission Line and other parts:	Andrew MACX350 3 1/8 inch rigid 99.7% Efficiency
Coaxial switch:	Myat Insertion loss: 0.01 dB 99.8% Efficiency
Required Transmitter Power Output To Reach Effective Radiated Power:	9.951 kilowatts

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Facilities Authorized:	Channel 291B1 - 106.1 MHz
Effective Radiated Power:	11.0 kilowatts (H/V)
Geographic Coordinates:	North Latitude 36° 51' 39" West Longitude 76° 21' 13"
Antenna Center of Radiation:	Above Ground 147.0 meters Above MSL 150.0 meters HAAT 149.0 meters
Antenna Structure Registration #:	1047304