

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: (493 feet)	Andrew HJ8-50B 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

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