

TECHNICAL EXHIBIT
APPLICATION FOR LICENSE
RADIO STATION WCTZ(FM)
PORT CHESTER, NEW YORK
CH 244A 3.1 KW 143 M

Technical Statement

This Technical Exhibit, of which this statement is part, was prepared on behalf of FM broadcast station WCTZ(FM) on Channel 244A assigned to the community of Port Chester, New York. WCTZ(FM) has authorization for a facility with an antenna height above terrain (HAAT) of 143 meters and its effective radiated power to 3.1 kilowatts (kW) employing a non-directional antenna atop the *Trump Plaza* building located in New Rochelle, New York.¹ By this instant application, program test authority and station licensure is requested.

Figure 1 is a tabulation of the R.F. operating parameters. The Appendix contains the FCC required radiofrequency exposure survey.

Charles A. Cooper

April 22, 2011

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¹ See FCC Construction Permit BMPH-20101104AAC.

Figure 1

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WCTZ(FM) RF Transmission System Specifications

Description	System
Transmitter Power Output (3.2 kW):	5.0 dBk
Transmission Line Loss: (HJ7-50A-45 feet) and (Myatt 1 5/8" rigid-20 feet):	0.1 dB
<i>ERI LPX-3E-HW</i> Antenna Gain (1.0 Power Gain):	0.0 dB
Effective Radiated Power (3.1 kW):	4.9 dBk

APPENDIX

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Radiofrequency Exposure Survey

The undersigned performed a radiofrequency exposure survey of the constructed WCTZ(FM) facility. WCTZ(FM) is seeking licensure with its transmitting antenna mounted upon a support structure located atop the *Trump Plaza* building located in New Rochelle, New York. The WCTZ(FM) constructed facility consists of a three-bay half-wavelength spaced transmitting antenna manufactured by ERI (Model Number LPX-3E-HW) with the nearest antenna element mounted 8 meters (25 feet) above the upper rooftop level of the *Trump Plaza* building. The effective radiated power is 3.1 kilowatts, employing circular polarization.

Below is a photograph showing the installed WCTZ(FM) transmitting antenna, its supporting structure, and the *Trump Plaza* upper rooftop level.



Photograph 1. Installed WCTZ(FM) Transmitting Antenna and Supporting Structure located on the upper rooftop level.

During the evening of April 21, 2011, a radiofrequency exposure survey was completed. WCTZ(FM) was operating (pursuant to its permitted equipment test authorization) using its proposed operating parameters. A Narda Model Number 8718 Field Strength meter, Narda Model Number B8742D uncontrolled environment isotropic shaped electric field probe and a Narda Model Number 8742 controlled environment isotropic shaped electric field probe were employed for the survey.¹ Below is Table 1 summarizing the exposure measurements.

¹ The Narda B8742D probe, 8742 probe and 8718 meter was last calibrated on January 19, 2011, January 5, 2011 and January 7, 2011, respectively. The Narda B8742D probe is defined by serial number 7002; the Narda 8742 probe is defined by serial number 03013 and the Narda 8718 meter is defined by serial number 01575.

Measurement Area	Maximum Exposure Levels (percent of uncontrolled environment maximum permitted value)
Upper Rooftop	35% - controlled environment
West Lower Rooftop	25% - uncontrolled environment
East Lower Rooftop	10% - uncontrolled environment
Mechanical/ Transmitter Level	5% - uncontrolled environment
Elevator Room	1% - uncontrolled environment

Table 1. Maximum Measured Exposure Levels.

As can be seen from the above table, no areas exceeded the Commission's maximum permitted controlled (or occupational) exposure on the rooftops or within the top building floor. Below is a photograph of the location of the highest measured exposure on the upper rooftop.



Photograph 2. Location of Highest Measured Radiofrequency Exposure on Upper Rooftop.

The *Trump Plaza* rooftop can be considered a controlled environment, as a securable rooftop hatch prevents unauthorized access to both the upper rooftop level and the WCTZ(FM) supporting structure. WCTZ(FM) will post radiofrequency exposure warning signs on the upper-rooftop area indicating the area is a controlled electromagnetic exposure environment. WCTZ(FM) will also secure and post additional exposure warning signs advising that climbing the antenna supporting structure while the station is operational may result in exposure exceeding the Commission's maximum exposure limit.

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