

Special Operating Conditions Showing
In Support of Application for License to Cover
W288CS – Rochester, NY
Construction Permit BPFT-20170410ACU
105.5 MHz ▪ Facility ID No. 78674

Special operating conditions or restrictions:

- 1. The licensee is rebroadcasting the HD Channel 4 of the above primary station.*

Licensee has obtained permission from the operator of WLGZ-FM to rebroadcast its HD-2 channel on W288CS. The map below verifies the F(50,50) contour of WLGZ completely encompasses the F(50,50) contour of W288CS.

Measurements were made were using a Techtronix 2712 spectrum analyzer with calibration verified in October 2014. Free Air measurements with made with a 1 meter, isotropic, vertically-polarized, element a distance of 20 meters from the transmission system of W248BH and W288CS.

The following measurements were observed:

105.5 MHz: -21.2 dBm

+/- 120 kHz

105.38 MHz: -66.3 dBm

105.62 MHz: -73.6 dBm

+/- 240 kHz

105.26 MHz: -65.2 dBm

105.74 MHz: -73.6 dBm

The ambient noise floor without W288CS and W248BH operating was measured at -110 dBm. All measurements beyond +/- 600 kHz demonstrated that there were no measurable emissions above the noise floor with free-air measurements. Further, with direct measurement, there was no noticeable emission at +/- 600 kHz on either frequency (97.5 MHz or 105.5 MHz) with both stations operating.

The measurements above demonstrate that requirements 73.317(b) and 73.317(c) have been met by permittee.

3. *The permittee/licensee shall, upon completion of construction and during the equipment test period, make proper radiofrequency electromagnetic (RF) field strength measurements throughout the area, including inside and on the roof of all nearby buildings, to determine if there are any areas that exceed the FCC guidelines for human exposure to RF fields. Any areas, including inside or on the roof of a building, found to exceed the recommended guidelines must be clearly marked with appropriate visual warning signs which describe the nature of the hazard. Furthermore, access to these areas must be restricted to prevent the exposure of humans to RF fields in excess of the FCC Guidelines (OET Bulletin No. 65, Edition 97-01, August 1997). Documentation demonstrating compliance with this special operating condition shall be submitted at the time of filing of the FCC Form 350-FM.*

RF measurements were made according to the FCC Guidelines the FCC Guidelines (OET Bulletin No. 65, Edition 97-01, August 1997). All areas on the rooftop, at the edges of the rooftop, and on the floor below the rooftop met the FCC requirements.

Measurements were made were using a Techtronix 2712 spectrum analyzer with calibration verified in October 2014. Free Air measurements with made with a 1 meter, isotropic, vertically-polarized, element mounted on a tripod. Calibration was performed against known signal strengths to verify accuracy.

The Antenna Factor was used to determine the conversion of RF energy of our receiving antenna into a 50 ohm load within the Spectrum Analyzer.

$$Af = 20 \log \left[\frac{2\pi}{\lambda} \sqrt{\frac{2.4}{10^{(Ga/10)}}} \right]$$

Using the Antenna Factor, the field strength is dB uV/m was determined, converted to V/m, and then RF Power Density in mW/cm².

$$E = R_{\text{reading}} - P_{\text{gain}} + L_{\text{cable}} + AF$$

where:

- R_{reading} = Receiver reading
- L_{cable} = Cable loss
- P_{gain} = pre amplifier gain
- AF = Antenna Factor

Site RF Strength Measurements								
Frequency	105.5 MHz							
Wavelength	2.84 meters							
Antenna	1m Vertical Whip with Ground Plane							
Antenna Gain	2.1 dBi							
Antenna Factor	8.59 (dB/m)							
Cable Loss	1.225 dB							
General Public Exposure	200 uW/cm ²							
Occupational/Controlled	1000 uW/cm ²							
Point	Meas. (dBm)	Meas. (dBuV)	Electric Field (dBuV/m)	Field Strength (mV/m)	Power uW/cm ²	Margin General	Margin Controlled	Notes
1	-27.3	79.69	89.50	29.87	2.3678	197.63	997.63	In Equipment Room
2	-26.6	80.39	90.20	32.38	2.7820	197.22	997.22	In Rooftop Stairwell by Exit
3	-12.4	94.59	104.40	166.05	73.1734	126.83	926.83	Below Antenna on Rooftop
4	-7.7	99.29	109.10	285.25	215.9500	-15.95	784.05	On Rooftop Near Antenna
5	-18.8	88.19	98.00	79.48	16.7631	183.24	983.24	30th Floor Equipment Room (N)
6	-21.6	85.39	95.20	57.57	8.7974	191.20	991.20	30th Floor Equipment Room (W)
7	-19.2	87.79	97.60	75.90	15.2881	184.71	984.71	30th Floor Equipment Room (S)

As demonstrated with the above set of measurements, there are no points that exceed the guidelines for RF exposure risk. The area near the antenna on the rooftop has a limit above the general public exposure level; however, it is within the accepted exposure levels for controlled/occupational work.

Permittee has demonstrated compliance with FCC Guidelines (OET Bulletin No. 65, Edition 97-01, August 1997).

Exhibit 10

Applicant shares the site with other users and clear marking is placed on the parapet above the roof where antenna masts are mounted warning of potential RF exposure at the site. The following is a photograph of one occurrence of this notification. This notification is present on a stairway leading to the top of the RF and machine shelter where antennas are mounted. Further, all antennas mounted on this shelter are at least 7m above the surface of the rooftop.



- 4. The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.***

Permittee shares space managed by a professional wireless company where rooftop access is managed by a professional security organization. Any person requiring access to the rooftop must undergo safety training on a biannual basis. Further, all access is logged and must be requested from the security office prior to accessing the rooftop. Permittee/licensee will coordinate with other users of the site to reduce power or cease operations to protect persons having access to the site.

- 5. Prior to commencing program test operations, FM Translator or FM Booster permittee must have on file at the Commission, FCC Form 350, Application for an FM Translator or FM Booster Station License, pursuant to 47 C.F.R. Section 74.14.***

Licensee confirms FCC Form 350 is being filed prior to program test operations.

This exhibit, relative to an application for a License to Cover has been prepared by the undersigned. It is submitted that this statement, the amendments contained within, and all supporting exhibits, comply with the Rules and Regulations of the Federal Communications Commission and all representations contained herein are true to the best of my knowledge.

A handwritten signature in black ink, appearing to read 'Brian P. McGlynn', with a stylized, flowing script.

Brian P. McGlynn
Genesee Media Corporation Engineering
Dated: October 10, 2017