

**WGVZ 289A - APPLICATION FOR NEW AUXILIARY FACILITY**

**I. WGVZ application**

This applications requests use of the former WGVZ main site as an auxiliary using the previously authorized facilities with a 60 degree clockwise rotation of the directional pattern. Shively has stated that this antenna on a pole mount may be rotated without affecting the measured pattern. Exhibit E1 demonstrates that the proposed 60 dBu is contained within the licensed WGVZ 60 dBu. The facility will be located at:

**(NAD 27) N 44-53-51 W93-24-22.**

**II. Antenna System and RF Calculations**

The previously licensed Shively 6810-2R-SS-DA antenna will be used with a rotation of 60 degrees, and an ERP of 3.8 kW. The antenna is mounted on a pole atop a building with the radiation center at 57 meters above ground and 9 meters above the hotel roof. The hotel roof is a restricted work area, and qualifies for the use of the 1000 microwatt/cm<sup>2</sup> occupational limit. The maximum RF contribution for WGVZ at 9 meters above the controlled occupational area on the building rooftop was calculated to be 436.7 microwatts/cm<sup>2</sup> at 13 meters utilizing the Commission's FMMODEL program - 44% of the maximum permissible occupational exposure level, and is, therefore, acceptable. RF measurement of the previously licensed 6 kW facility (attached) demonstrated RF levels in the hotel rooms on the top floor well below the limit for public exposure. Therefore, it is reasonable to assume that the proposed 3.8 kW facility will pose no RF hazard to the general public.

**III. Conclusion**

It is concluded that the proposed WGVZ modifications are in full compliance with Commission rules and policies.



Charles M. Anderson February 19, 2009  
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Bowling Green, KY 42103  
270-782-0246

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**E1 WGVZ AUX AND  
WGVZ LICENSED 60 DBU**

**WGVZ-AUX**

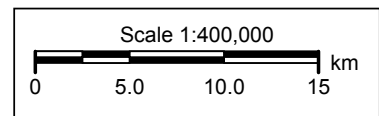
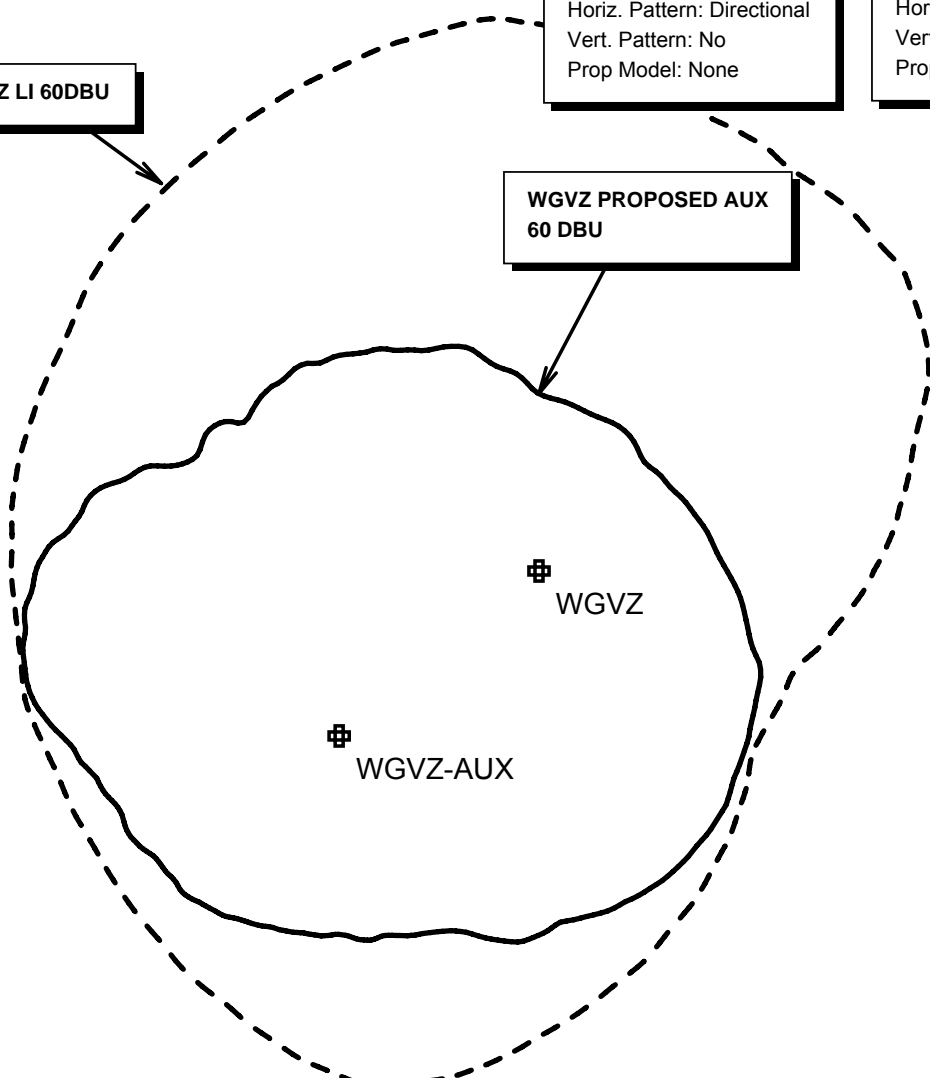
Latitude: 44-53-51 N  
Longitude: 093-24-22 W  
ERP: 3.80 kW  
HAAT: 72.19 m  
Channel: 289  
Frequency: 105.7 MHz  
RCAMSL Height: 340.0 m  
Site Elevation: 283.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**WGVZ**

BLH20080502ABX  
Latitude: 44-58-34 N  
Longitude: 093-16-20 W  
ERP: 0.95 kW  
HAAT: 254.0 m  
Channel: 289  
Frequency: 105.7 MHz  
RCAMSL Height: 521.0 m  
Site Elevation: 260.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**WGVZ LI 60DBU**

**WGVZ PROPOSED AUX  
60 DBU**

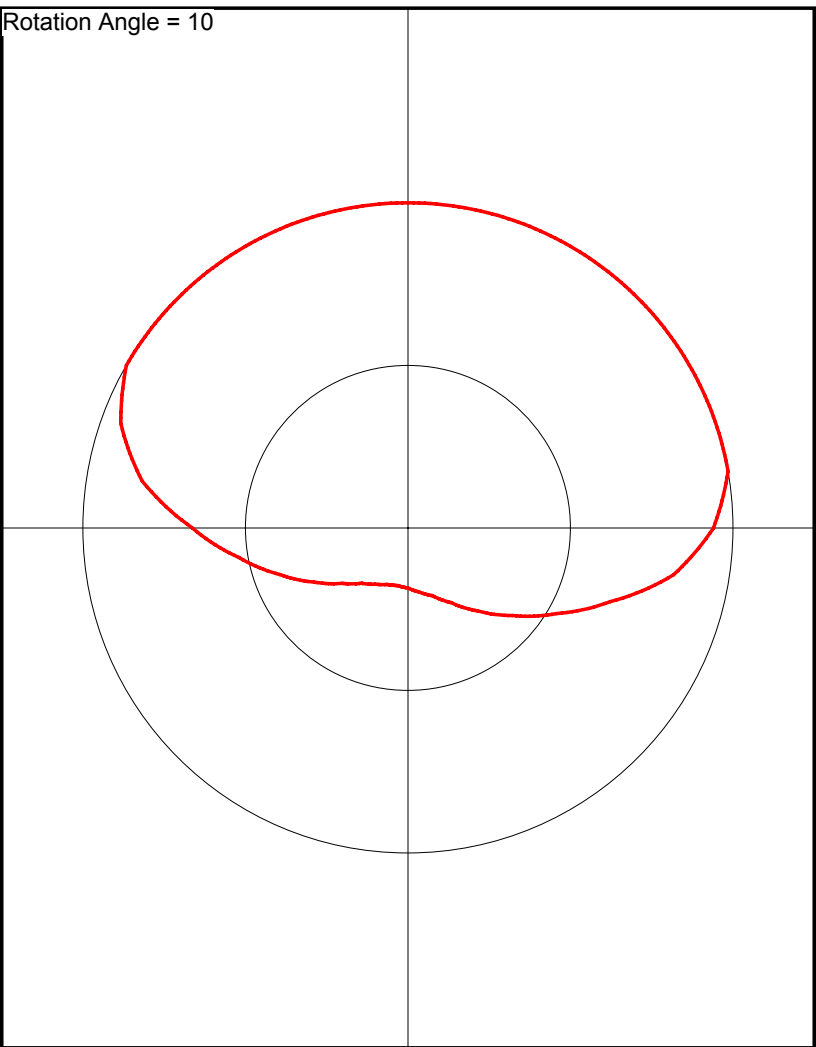


E2 Proposed WGVZ Antenna Pattern

Post-Rotation Antenna Pattern....

Azimuth (deg)	Effective Field
0.0	1.000
10.0	1.000
20.0	1.000
30.0	1.000
40.0	1.000
50.0	1.000
60.0	1.000
70.0	1.000
80.0	1.000
90.0	0.940
100.0	0.830
110.0	0.663
120.0	0.527
130.0	0.419
140.0	0.333
150.0	0.265
160.0	0.222
170.0	0.200
180.0	0.185
190.0	0.180
200.0	0.185
210.0	0.200
220.0	0.222
230.0	0.265
240.0	0.333
250.0	0.419
260.0	0.527
270.0	0.663
280.0	0.830
290.0	0.940
300.0	1.000
310.0	1.000
320.0	1.000
330.0	1.000
340.0	1.000
350.0	1.000

Rotation Angle = 10





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August 10, 2005

David J. Szaflarski  
KQRS, Inc.  
2000 Elm Street Southeast  
Minneapolis, MN 55414

Subject: RF field levels inside the Minneapolis Marriott Southwest Hotel

Dear David:

In December 2003 RF field measurements were made on the 17<sup>th</sup> floor of the subject hotel, which is directly below the roof. Measurements were made in the single hallway and in one of the guest rooms using RF survey equipment appropriate to the task. The RF field levels on the 17<sup>th</sup> floor were below the minimum detection level of the RF survey instrument and far below the FCC's MPE limit for General Population/Uncontrolled exposure. The structure of the hotel provides a significant level of attenuation, so there was no reason to make measurements on lower floors. The proper functioning of the survey equipment was verified by going on the roof of the hotel and getting fairly close to the WGVZ-FM antenna where there is sufficient energy to make measurements.

The shaped-frequency response Model A8742D probe used to make the measurements has frequency-dependent sensitivity that closely conforms to the FCC's MPE limit for Occupational/Controlled exposure between 3 MHz and 3 GHz, which includes all known emitters located on the roof of the hotel. The difference between the FCC's two sets of exposure limits is exactly five to one above 3 MHz. Therefore, a meter indication of 20 percent is equivalent to 100 percent of the limit for General Population/Uncontrolled exposure, excluding measurement uncertainty. The minimum field level that can be accurately measured is approximately 3 percent of the MPE limit for General Population/Uncontrolled exposure. The minimum RF field level that can be detected is 0.5 percent of this MPE limit.

**Given the minimum measurement capability of the survey instrument, it can be concluded with confidence that the RF field levels inside the hotel are below 1 percent of the FCC's MPE limit for General Population/Uncontrolled exposure.**

Sincerely,

Richard. R. Strickland  
RF Safety Consultant

# TOWAIR Determination Results

## \*\*\* NOTICE \*\*\*

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

### DETERMINATION Results

**Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.**

#### Your Specifications

##### NAD83 Coordinates

Latitude	44-53-51.0 north
Longitude	093-24-22.0 west

##### Measurements (Meters)

Overall Structure Height (AGL)	58
Support Structure Height (AGL)	58
Site Elevation (AMSL)	283

##### Structure Type

TOWER - Free standing or Guyed Structure used for Communications Purposes

#### Tower Construction Notifications

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW