

**Compliance with Special Operating Conditions**

The WBKV (Formerly WFBF) Construction Permit (File Number 0000083826) contains several Special Operating Conditions summarized as follows:

1. The permittee/licensee 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.
2. BEFORE PROGRAM TESTS ARE AUTHORIZED, permittee shall submit the results of a complete proof-of-performance to establish the horizontal plane radiation patterns for both the horizontally and vertically polarized radiation components. This proof-of-performance may be accomplished using the complete full size antenna, or individual bays therefrom, mounted on a supporting structure of identical dimensions and configuration as the proposed structure, including all braces, ladders, conduits, coaxial lines, and other appurtenances; or using a carefully manufactured scale model of the entire antenna, or individual bays therefrom, mounted on an equally scaled model of the proposed supporting structure, including all appurtenances. Engineering exhibits should include a description of the antenna testing facilities and equipment employed, including appropriate photographs or sketches and a description of the testing procedures, including scale factor, measurements frequency, and equipment calibration.
3. BEFORE PROGRAM TESTS ARE AUTHORIZED, permittee must submit a certification executed by a licensed surveyor showing that the FM directional antenna system has been oriented at the azimuth(s) specified in the directional antenna proof of performance. This certification must include a description of the method used by the surveyor to determine the azimuth(s) of the installed directional antenna system and the accuracy of that determination.
4. BEFORE PROGRAM TESTS ARE AUTHORIZED, permittee/licensee shall submit an affidavit that the installation of the directional antenna system was overseen by a qualified engineer. This affidavit shall include a certification by the engineer that the antenna was installed pursuant to the manufacturer's instructions and list the qualifications of the certifying engineer.
5. BEFORE PROGRAM TESTS ARE AUTHORIZED, the permittee must submit an exhibit demonstrating that the measured directional antenna pattern complies with the appropriate community coverage provisions of 47 C.F.R. Sections 73.315 or 73.515 (See 47 C.F.R. Section 73.316(c)(2)(ix)(B)).
6. The RMS of the composite measured relative field horizontal plane directional antenna pattern must encompass at least 85% of the RMS of the composite relative field horizontal plane directional antenna pattern authorized by this construction permit.
7. The relative field strength of neither the measured horizontally nor vertically polarized radiation component shall exceed at any azimuth the value indicated on the composite radiation pattern authorized by this construction permit. A relative field strength of 1.0 on the composite radiation pattern herein authorized corresponds to the following effective radiated power: 3.0 kilowatts  
Principal minima and their associated field strength limits:  
150 to 210 degrees True (clockwise): 0.95 kilowatt  
230 degrees True: 0.95 kilowatt

EMF complies with, or agrees to, these conditions as follows:

1. EMF in coordination with other users of the site, agrees to 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.
2. A complete Proof of Performance is contained in Exhibit 1-A
3. The directional antenna system has been oriented at the correct azimuth as certified in Exhibit 1-B.
4. The installation of the directional antenna system was done under the supervision of a qualified engineer with the signed affidavit certification in Exhibit 1-C.
5. Community of License coverage using the measured directional pattern is seen in Exhibit 1-D.
6. The RMS of the composite measured relative field horizontal plane directional antenna pattern encompasses 90.2% of the RMS of the composite relative field horizontal plane directional antenna pattern authorized by this construction permit. This is shown on page 5 in the antenna proof report.
7. The measured relative field strengths of the horizontal and vertical patterns are seen in Exhibit 1-A and abide by the principal minima values as listed.

6/24/2021

Jeff Genzel  
Genzel Land Surveying, P.C.  
7033 Cole Road  
Colden, NY 14033

Tommy Presite  
Field Engineer  
5700 W. Oaks Blvd.  
Rocklin, CA 95765

Re: WBKV Cole Road Tower, Boston NY

On June 23, 2021 we determined the orientation of the antenna installed on the tower at 9084 Cole Road in the Town of Boston, Erie County New York State to be True North Azimuth of 7 degrees.

The azimuth was determined by sighting the antenna with conventional methods with a total station which was tied to ground control points established by GPS using NY West Zone Datum.

The azimuth is within an accuracy  $\pm 1.0$ .

If you have any questions, please feel free to contact me.

Sincerely,



Jeff Genzel  
President  
Genzel Land Surveying, P.C.



**Educational Media Foundation**  
5700 West Oaks Boulevard  
Rocklin, CA 95765

Buffalo, NY

## **Engineer Certification**

### **Certification for WBKV Antenna Installation**

**RE: Construction Permit 0000083826**

3 December 2021

This is to certify the installation of the Shively directional antenna for WBKV, model 6025-1 was installed in accordance with the manufacturer's detailed instructions.

All work was performed by qualified personnel using good engineering practices and under my direct supervision. Vertical Technology Services performed all antenna work at this site.

Certifying engineer qualifications:

Felipe Gonzalez  
Field Engineer I  
EMF Broadcasting  
5700 West Oaks Blvd  
Rocklin, CA 95765

9 years of AM/FM Broadcast Experience

*Felipe Gonzalez*

**Community of License  
Overlap Population Report**

**Areas to be Considered**

**Total Corporate Boundary of Buffalo, NY Including Water**  
Polygon Population Report

Population Database: 2010 US Census (PL)

Total Population: 261,631

Total Area: 136.0 sq. km

**Corporate Boundary of Buffalo, NY Land Area Only**  
Polygon Population Report

Population Database: 2010 US Census (PL)

Total Population: 259,688

Total Area: 103.3 sq. km

**Water Inlet Within Corporate Boundary of Buffalo, NY**  
Polygon Population Report

Population Database: 2010 US Census (PL)

Total Population: 0

Total Area: 2.4 sq. km

**Land Area of Buffalo, NY To Be Considered With 60dbu Overlap**  
 $103.3 \text{ sq km} - 2.4 \text{ sq. km} = 100.91 \text{ sq. km}$

### **Overlap Population Report**

WBKV Test Range (210) / Unknown

Overlap Area Type: Intersection

Areas Included:

WBKV Test Range (210): FCC F(50-50) 60.00 dBu (FCC HAAT)

PLST: Polygon of Buffalo Land Area

Population Database: 2010 US Census (PL)

Total Population: 120,691

Overlap Area: 60.25 sq. km (Area determined using 0.035 km cells)

Terrain Data: Globe 30 Second World Database

| Area<br>Description        | Total<br>Population | Total Area<br>[sq.km] | Percent<br>Population | Percent<br>Area |
|----------------------------|---------------------|-----------------------|-----------------------|-----------------|
| WBKV Test Range (210):     | 437,419             | 1,218                 | 27.6 %                | 5.1 %           |
| PLST: Land Area of Buffalo | 259,688             | 100.91                | 46.5 %                | 59.7 %          |

### **Conclusion**

Since the percent of land area contained inside the antenna test range 60dbu contour is equal or more than 50%, the Community of License requirement has been satisfied.

Overlap Population Report  
WBKV/WBKV Test Range (210) / Unknown

Overlap Area Type: Intersection

Areas Included:

WBKV Test Range (210): FCC F(50-50) 60.00 dBu (FCC HAAT)  
PLST: Buffalo Land Area

Population Database: 2010 US Census (PL)

Total Population: 120,691

Overlap Area: 60.25 sq. km(Area determined using 0.035 km cells)

Terrain Data: Globe 30 Second World Database

| Area Description        | Total Population | Total Area [sq. km] | Percent Population | Percent Area |
|-------------------------|------------------|---------------------|--------------------|--------------|
| WBKV Test Range (210):  | 437,419          | 1,218               | 27.6 %             | 5.1 %        |
| PLST: Buffalo Land Area | 259,688          | 100.91              | 46.5 %             | 59.7 %       |

WBKV Community of License Coverage

**WBKV Test Range**

0000083826

Latitude: 42-38-10.40 N

Longitude: 078-42-59.60 W

ERP: 3.00 kW

Channel: 210

Frequency: 89.9 MHz

AMSL Height: 561.6 m

Elevation: 456.6 m

Horiz. Pattern: Directional

Vert. Pattern: No

Prop Model: None

Orange Outline - Corporate Boundary of Over Land  
Buffalo, NY 103.3 sq km - 2.4 sq km Water Inlet = 100.91 sq km

Green Boundary - Corporate Boudary of Buffalo, NY  
136.0 sq km

Red Shaded Area - 60dbu Overlap Area  
60.25 sq km = 59.7% of land

Green Outline Area - Water Inlet Area = 2.4 sq km

F(50-50) 60.00 dBu

Scale 1:100,000



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