Federal Communications Commission

FM BROADCAST STATION CONSTRUCTION PERMIT

Permittee
Lehigh University
27 Memorial Drive West
Alumni Memorial
Building
Bethlehem, PA, 18015

Call Sign	Facility ID
WLVR-FM	36984

File Number	This Permit Modifies License File No.	
0000210023	BLED-20151027AFJ	
Filing Date	**Grant Date**	**Expiration Date**
02/01/2023	04/26/2023	36 months after the grant date

Community of License	Frequency (MHz)	Station Channel	Station Class
City: BETHLEHEM **State:** PA	91.3	217	A

Hours of Operation: Unlimited

Facility Type: Noncommercial Educational

Transmitter	Transmitter Output Power
Certified for Compliance. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.	As required to achieve authorized ERP.
Antenna Type Directional	**Antenna Coordinates (NAD 83)** **Latitude** 40-36-6.2 N **Longitude** 75-21-37 W

Major Lobe Directions
Not Applicable

	Horizontally Polarized Antenna	Vertically Polarized Antenna
Effective Radiated Power in the Horizontal Plane (kW)	0.04	0.22

Height of Radiation Center Above Ground (meters)	31	31
Height of Radiation Center Above Mean Sea Level (meters)	302	302
Height of Radiation Center Above Average Terrain (meters)	170	170

Antenna Structure Registration Number	**Overall Height of Antenna Structure Above Ground (meters)**
Not Required	34

Obstruction Marking and Lighting Specifications for Antenna Structure

It is expressly understood that the issuance of these specifications is in no way to be considered as precluding additional or modified marking or lighting as may hereafter be required under the provisions of Section 303 (q) of the Communications Act of 1934, as amended.

Special Operating Conditions or Restrictions

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.

- Lehigh University requests waiver of 47 C.F.R. § 73.509 to allow the facility authorized in construction permit no. 0000210023, callsign WLVR-FM, to receive contour overlap from the 100 dBu contour of second adjacent facility WMUH, Allentown, PA (Facility ID No. 46947) on Channel 219A. We have afforded this request the "hard look" called for under WAIT Radio v. FCC, 418 F.2d 1153 (D.C. Cir. 1969), and find that the facts and circumstances presented in the applicant’s justification are sufficient to establish that grant of the requested waiver is in the public interest. Accordingly, waiver of 47 C.F.R. § 73.509 IS HEREBY GRANTED. Furthermore, further modifications of Station WMUH will not be construed as a “per se” modification of WLVR-FM's facility. (See Educational Information Corporation, 6 FCC Rcd 2207 (1991)).
- 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.
- 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.
- 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.

- 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)).
- 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: 0.22 kilowatts. Principal minima and their associated field strength limits: 310-330 degrees True: 0.0115 kilowatts
- Permittee has specified use of ERI LPX-2DA-HW (EPA Type 3 (Opposed 'U' dipole)), 2 sections, 0.5 wavelength-spaced antenna to demonstrate compliance with the FCC radiofrequency electromagnetic field exposure guidelines. If any other type or size of antenna is to be used with the facilities authorized herein, THE AUTOMATIC PROGRAM TEST PROVISIONS OF 47 C.F.R. SECTION 73.1620 WILL NOT APPLY. In this case, a FORMAL REQUEST FOR PROGRAM TEST AUTHORITY must be filed in conjunction with the application for FM license BEFORE program tests will be authorized. The request must include a revised RF field showing to demonstrate continued compliance with the FCC guidelines.
- Warning signs which describe the radiofrequency radiation hazard must be posted on the roof and at all access points to the roof. Access to the roof must be restricted to prevent the exposure of humans to radiofrequency electromagnetic fields in excess of the FCC Guidelines in OET Bulletin No. 65, Edition 97-01, August 1997. Please note, persons who are not employees of the radio station must be protected to the public (uncontrolled) RF radiation limit of 0.2 mW/cm2 (200 uW/cm2).

Subject to the provisions of the Communications Act of 1934, as amended, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this permit, the permittee is hereby authorized to construct the radio transmitting apparatus herein described. Installation and adjustment of equipment not specifically set forth herein shall be in accordance with representations contained in the permittee's application for construction permit except for such modifications as are presently permitted, without application, by the Commission's Rules(See Section 83.875).

Pursuant to Section 73.3598, this Construction Permit will be subject to automatic forfeiture unless construction is complete and application for license is filed prior to expiration.

Equipment and program tests shall be conducted only pursuant to Sections 73.1610 and 73.1620 of the Commission's Rules.