

Federal Communications Commission

FM AUXILIARY ANTENNA BROADCAST STATION CONSTRUCTION PERMIT

Permittee

EDUCATIONAL MEDIA
FOUNDATION
5700 WEST OAKS BLVD
ROCKLIN, CA, 95765

Call Sign	Facility ID
KAIZ	2749

File Number 0000094438	This Permit Modifies License File No. BXPED-20190528AAA	
Filing Date 12/30/2019	Grant Date 03/03/2020	Expiration Date 06/21/2022

Community of License City: AVONDALE State: AZ	Frequency (MHz) 105.5	Station Channel 288	Station Class C2
Hours of Operation: Unlimited - For auxiliary purposes only			

Transmitter Certified for Compliance. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.	Transmitter Output Power As required to achieve authorized ERP.
Antenna Type Directional	Antenna Coordinates (NAD 83) Latitude 33-35-40.1 N Longitude 112-5-14.5 W

	Horizontally Polarized Antenna	Vertically Polarized Antenna
Effective Radiated Power in the Horizontal Plane (kW)	5.0	5.0
Height of Radiation Center Above Ground (meters)	10	10
Height of Radiation Center Above Mean Sea Level (meters)	648	648

Height of Radiation Center Above Average Terrain (meters)	239	239
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Antenna Structure Registration Number Not Required	Overall Height of Antenna Structure Above Ground (meters) 58
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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.

- 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 shall submit an affidavit from a licensed surveyor to establish that the directional antenna has been oriented at the proper azimuth.
- 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.
- 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: 5.0 kilowatts. Principal minima and their associated field strength limits: 320 degrees True through 40 degrees True: 0.061 kilowatt.
- The permittee/licensee shall, upon completion of construction and during the equipment test period, make proper radiofrequency electromagnetic (RF) field strength measurements throughout the transmitter site area to determine if there are any areas that exceed the FCC guidelines for human exposure to RF fields. If necessary, a fence must be erected at such distances and in such a manner as to prevent the exposure of humans to RF fields in excess of the FCC Guidelines (OET Bulletin No. 65, Edition 97-01, August 1997). The fence must be a type which will preclude casual or inadvertent access, and must include warning signs at appropriate intervals which describe the nature of the hazard. Any areas within the fence found to exceed the recommended guidelines must be clearly marked with appropriate visual warning signs.

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.

