

Compliance with Special Operating Conditions

The KJLV Construction Permit (File Number 0000159633) 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. THE AUTOMATIC PROGRAM TEST PROVISIONS OF 47 C.F.R. § 73.1620 DO NOT APPLY IN THIS CASE. A FORMAL REQUEST FOR PROGRAM TEST AUTHORITY MUST BE FILED WITH THE FCC FORM 302-FM, APPLICATION FOR LICENSE, BEFORE PROGRAM TESTS WILL BE AUTHORIZED. This request must contain documentation which demonstrates compliance with the following special operating condition(s):
3. The permittee/licensee must, upon completion of construction and during the equipment test period, make proper radiofrequency electromagnetic (RF) field strength measurements throughout the transmitter site area, including on the roof and inside all nearby buildings, to determine if there are any areas that exceed the FCC guidelines for human exposure to RF fields. Any areas, including on the roof or inside 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. 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.
4. Documentation demonstrating compliance with the preceding special operating condition shall be submitted at the time of filing of FCC Form 302-FM.
5. 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.

6. 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.
7. 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.
8. 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:
0.75 kilowatts
Principal minima and their associated field strength limits:
270 degrees True: 0.00152 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 formal request for program test authority is hereby submitted in this Form 302-FM License Application
3. RF Measurements have been done to determine the RF Fields in and around the immediate area of the tower and associated buildings. Measurements were done before and after testing the newly installed antenna system. These measurements are seen in Exhibit 1-A.
4. RF Measurements and compliance with RF Safety precautions are included with this license application.
5. A complete Proof of Performance is contained in Exhibit 1-C
6. The installation of the directional antenna system was done under the supervision of a qualified engineer with the signed affidavit certification in Exhibit 1-D.
7. The directional antenna system has been oriented at the correct azimuth as certified in Exhibit 1-E.
8. The measured relative field strengths of the horizontal and vertical patterns are seen in Exhibit 1-C and abide by the principal minima values as listed.

Environmental Effects

Educational Media Foundation (“EMF”) certifies that KJLV complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments.

On March 9, 2022, Scott Mearns, Engineer for Educational Media Foundation, used EMF’s “shaped probe” Narda RFR measurement equipment¹ to evaluate radiofrequency exposure compliance at the KJLV transmitter site. KJLV was operating at its fully permitted effective radiated power of .75kw while these tests were made.

Measurements were taken at the base of the tower and at various points around the tower compound, obstacles permitting. The terrain immediately to the east of the transmit site is a sharp and steep drop off with overgrown brush. The probe was slowly swept between 1-2 meters above the ground, as well as approximately 1 meter side-to-side, seeking, and noting, the highest overall readings. The highest overall peak reading found during these measurements is 12.29% of the controlled exposure limits of OET-65 which is 61.45% of the uncontrolled/public exposure limits.

These values are below the FCC limits for controlled and public/uncontrolled human exposure to RF fields. Therefore, no fencing or warning signs are required. In the abundance of caution, it has been noted that access to this site is limited. A locked gate and fencing surrounds the compound. All areas located inside the locked fence and outside the locked fence are in compliance with OET-65.

Based on this evaluation, KJLV fully complies with the FCC’s maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments.

¹ Instrument: Narda NBM-550, Serial Number B-0755, Calibration date 07/23/2021
Probe: Narda EA5091, Serial Number 01057 Calibration date 07/23/2021

Educational Media Foundation
5700 West Oaks Boulevard
Rocklin, CA 95765

Los Altos, CA

Engineer Certification

Certification for KJLV Los Altos, CA Antenna Installation

RE: Construction Permit 0000159633

March 14, 2022

This is to certify the installation of the Shively directional antenna for KJLV, model 6025-2-SS-Offset Antenna 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. SWE Services LLC performed all antenna work at this site.

Certifying engineer qualifications:

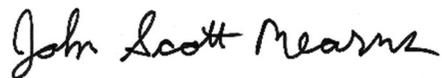
Holder of FCC General Radiotelephone Operator License PG-12-34102 issued 8/5/1992

SBE certified Broadcast Engineer 1995-2001

AM/FM Chief Operator and station engineer since 1986

EMF Broadcasting Field Engineer since 2019

John S. (Scott) Mearns
Field Engineer
EMF Broadcasting
5700 West Oaks Blvd
Rocklin, CA 95765





March 21, 2022

EMF Broadcasting Company
5700 W. Oaks Boulevard
Rocklin, CA 95765

**Reference: EMF Broadcasting Company "KJLV – AUX"
Black Mountain Radio Tower
Los Altos, CA**

This letter is to certify the azimuth alignment of the Upper and Lower Antennas of EMF Broadcasting "KJLV – AUX" antennas located at the Black Mountain Radio Tower in Los Altos, CA. On March 15, 2022, Barber Surveying performed a field survey using global positioning equipment to establish true north based upon the WGS 84 reference datum. Measurements were taken along the upper and lower antennas to calculate the azimuth orientation of each antenna relative to True North. The results of the survey are as follows:

Upper Antenna azimuth alignment relative to True North: **55° 00'**

Lower Antenna azimuth alignment relative to True North: **55° 00'**

NOTE: *The survey accuracy of the above measurements is plus or minus one degree.*

Sincerely,

BARBER SURVEYING, Inc.

Shane R. Barber, P.L.S. 9097

