

KJLF(FM)
Butte, MT
Proposed Minor Modification
Of Permitted Facility

Application Overview:

KJLF(FM) (FCC Facility ID# 93010) proposes to modify its currently Permitted Facilities using the following parameters:

Tech Box:

Channel:	213
Class:	C2
Antenna Coordinates:	N46-00-22, W112-26-33 (NAD 27)
ASRN:	N/A
Tower Height AMSL:	31 m
COR AMSL:	2493 m
COR AGL:	12 m
COR HAAT:	530 m
ERP:	Vertically Polarized 1 kW
Directional Antenna:	No

Antenna Site City-Grade Coverage:

Exhibit 4 demonstrates that the proposed facility's antenna site provides city grade coverage of KJLF(FM)'s community of license – Butte, MT. As can be seen in the Exhibit, 100% of Butte's community boundaries are encompassed by the F(50,50) 60 dBu contour of the

proposed facility. Also, no major terrain obstructions are located between the antenna site and the community.

Overlap Study:

Exhibit 5 is a contour overlap study demonstrating that the proposed facility does not overlap any other applications, authorizations, and permits in accordance with Section 73.509.

NCE vs Television Channel 6 Protection:

There are several considerations outlined in 47 C.F.R. 73.525 for TV channel 6 protection. Outlined below are the various factors as they apply to the proposed operation and KTVM-TV. 47 C.F.R. 73.525(a)(1) requires a minimum separation of 193 kilometers for a channel 213 FM operation. The distance between the proposed station and KTVM-TV is 0.17 kilometers. When a proposed non-commercial station is not co-located with the channel 6 station in question, the applicant is required to show that the interference area (as predicted by the procedures outlined in 47 C.F.R. 73.525(e)(1)) contains no more than 3,000 persons. The actual population figures are contained in Exhibit 6A, and a map of the interference area is shown in Exhibit 6B.

When an applicant proposes vertically polarized transmissions only, C.F.R. 74.525(e)(4) limits the vertical ERP to the maximum permissible horizontally polarized ERP multiplied by 40 (if the predicted interference area lies entirely outside the limits of a city of 50,000 persons) or 10 (if not). The proposed horizontally polarized ERP for the proposed facility is 0.025 kilowatts. Since the predicted interference area lies entirely outside the limits of a city of 50,000 persons, the maximum permissible horizontally polarized ERP is multiplied by 40 to obtain the vertical-

only ERP of 1.0 kilowatts specified in this application.

Population in the predicted interference area was determined using the centroid method and the 2000 census. The predicted interference contour (of the theoretical horizontal component of 0.025 kilowatts) is contained within the KTVM channel 6 F(50,50) 90 dBu contour (see Exhibit 6B).

The predicted interference contour is determined from 47 C.F.R. 73.599 for channel 213 to be 90.5 dBu. (See the table below for a tabulation of the KTVM protected contour values and the corresponding channel 213 interfering contours).

KTVM LI 06+ 2C Dom Int 100.000 kW 591 M HAAT
Butte MT 2566.0 M COR AMSL
Lat= 46 00 27.0, Lng= 112 26 30.0
Bluestone License Holdings BLCT1991
Fac ID# 18066, Cutoff Date=53897628
Dist.=0.16724 km, Azi=22.6°, Rev Azi=202.6°

Direct line HAAT Grade B, 47 dBu= 137.28 km & Grade A= 79.42 km

Distance from reference to Grade B = -137.11 km

Cutoff Dist from Full Service or Class CA= 193

Maximum Co-located power= 38 kW

KTVM Signal Contour at Reference location = 142.5 dBu

CH. 213, U/D ratio = .5 dB, Maximum FM signal = 90.5 dBu , add 6 dB if within angle.

TV/FM D to U values

47.0	69.5	55.0	68.7	63.0	70.2	71.0	74.9	79.0	81.2	87.0	87.9
48.0	69.3	56.0	68.8	64.0	70.7	72.0	75.6	80.0	82.0	88.0	88.7
49.0	69.0	57.0	68.8	65.0	71.1	73.0	76.4	81.0	82.8	89.0	89.6
50.0	68.8	58.0	68.9	66.0	71.7	74.0	77.2	82.0	83.7	90.0	90.5
51.0	68.8	59.0	69.0	67.0	72.2	75.0	78.0	83.0	84.5	91.0	90.5
52.0	68.7	60.0	69.3	68.0	72.8	76.0	78.8	84.0	85.3	92.0	90.5
53.0	68.7	61.0	69.5	69.0	73.5	77.0	79.6	85.0	86.2	93.0	90.5
54.0	68.7	62.0	69.8	70.0	74.2	78.0	80.4	86.0	87.0	94.0	90.5

Exhibit 6B shows the F(50,50) 90 dBu contour for KTVM and the corresponding F(50,10) 90.5 interfering contour for the proposed channel 213 facility. Additionally shown on that map is a population scattergraph of the area of proposed operation. The total population contained within the interfering contour is 0 persons. Therefore, the proposed operation is within the limitations of 47 CFR 73.525(c).

Downward Radiation Study (Measure Upon Construction)

Due to the fact that several existing and proposed emitters are located at or near the site, the applicant agrees to conduct a Radiofrequency Electromagnetic Field survey at the site upon construction of the proposed facility to ensure that any areas at ground level that exceed the Commission's exposure guideline values are appropriately marked and fenced. The results of the survey will be provided with the application for license.

Even though the site will fully comply with the Controlled Site Standards, access to the transmitting site will be restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, shall be taken to ensure that the human exposure to radiofrequency radiation will not exceed the FCC guidelines.

Existing Tower:

The proposed facility is exempt from environmental processing because the facility is not located at a location specified in Section 1.1307(a)(1)-(8) of the Commission's Rules and since the tower in question already exists.

Exhibit 4

Proposed Antenna Site Contour Map:

F(50,50) City-Grade Contour

Exhibit 5

Contour Overlap Study

Exhibit 6A

NCE vs Television Channel 6 Interference Contour Population Report

Exhibit 6B

NCE vs Television Channel 6 Map

**FM Channel 213C2 F(50,10) 90.5 dBu Interfering Contour
vs
TV Channel 6 F(50,50) 90 dBu Protected Contour**

