

K283BQ
Great Falls, MT
Proposed Minor Modification
of Licensed Translator Facility

Application Overview:

The Applicant contingently proposes to modify BLFT-20120416AAW using the following parameters:

Tech Box:

Channel:	282
Antenna Coordinates:	N47-27-52, W111-21-18 (NAD 27)
ASRN:	1265983
Tower Site Base AMSL:	1126 m
Overall Tower Height AGL:	27 m
COR AGL:	5 m
ERP:	Vertically Polarized 0.002 kW
Directional Antenna:	No

Primary Station and Translator Protected Contour Relationship:

Exhibit 1 demonstrates that the proposed fill-in translator facility's protected contour is completely encompassed by the protected contour of the primary station being rebroadcast.

Interference Study (Adjacent Station):

Exhibit 2 is a contour overlap study demonstrating that the proposed antenna site provides requisite contour protection towards all applications, authorizations, and permits pursuant to Section 74.1204 with the exception of the following:

- KIKF(FM) (BLH-20011210ABW) on its Third adjacent channel

Section 74.1204(a) states that “an application for an FM translator station will not be accepted for filing if the proposed operation would involve overlap of predicted field strength contours with any other station, including commercial and noncommercial educational FM stations, FM translators and Class D (secondary) noncommercial educational FM stations.” However, Section 74.1204(d) states, “the provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water. In addition, an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or other such factors as may be applicable.” Using the undesired-to-desired ratio method regarding interference to a second or third adjacent frequency, interference is predicted to occur where the translator’s undesired signal exceeds the protection station’s desired signal by more than 40 dB. The free space formula was used to determine the signal strength of the proposed facility, in dBu, at the antenna site of the adjacent station(s).

The signal strength of KIKF(FM) at the proposed site is calculated to be 82.7 dBu. As such, the interfering contour of the proposed facility is its F(50,10) 122.7 dBu contour which extends a maximum distance of 7.3 meters meters from the proposed tower.

Exhibit 2A includes a satellite view of the proposed translator site. There are no structures or public roads (other than the site access road to the tower) within the interference contour predicted to be created by the translator. Therefore, due to the absence of “potential listeners” within the interference contour, no interference is expected to occur.

No Other Co-Located Emitters:

No directional emitters are authorized to use the proposed tower.

Downward Radiation Study (FM Model):

The proposed FM Facility has been evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level in accordance with OET Bulletin No. 65, Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields (OET Bulletin 65, Second Edition 97-01, August, 1997). The Commission’s FM Model Power Density Prediction program was employed to determine the Field. Using the Phelps-Dodge "Ring Stub" Worst Case antenna with 1 sections and 1 wavelength spacing, and the AGL height and ERP proposed in this application, the highest predicted power density 2 meters above ground is less than 3.5% of the Uncontrolled Standard with a Power Density of 7 microwatts per square centimeter 0.8 meters from the base of the tower. The tower is fully fenced so inadvertent access to this area by the public is not possible.

Even though the site will fully comply with the Uncontrolled 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

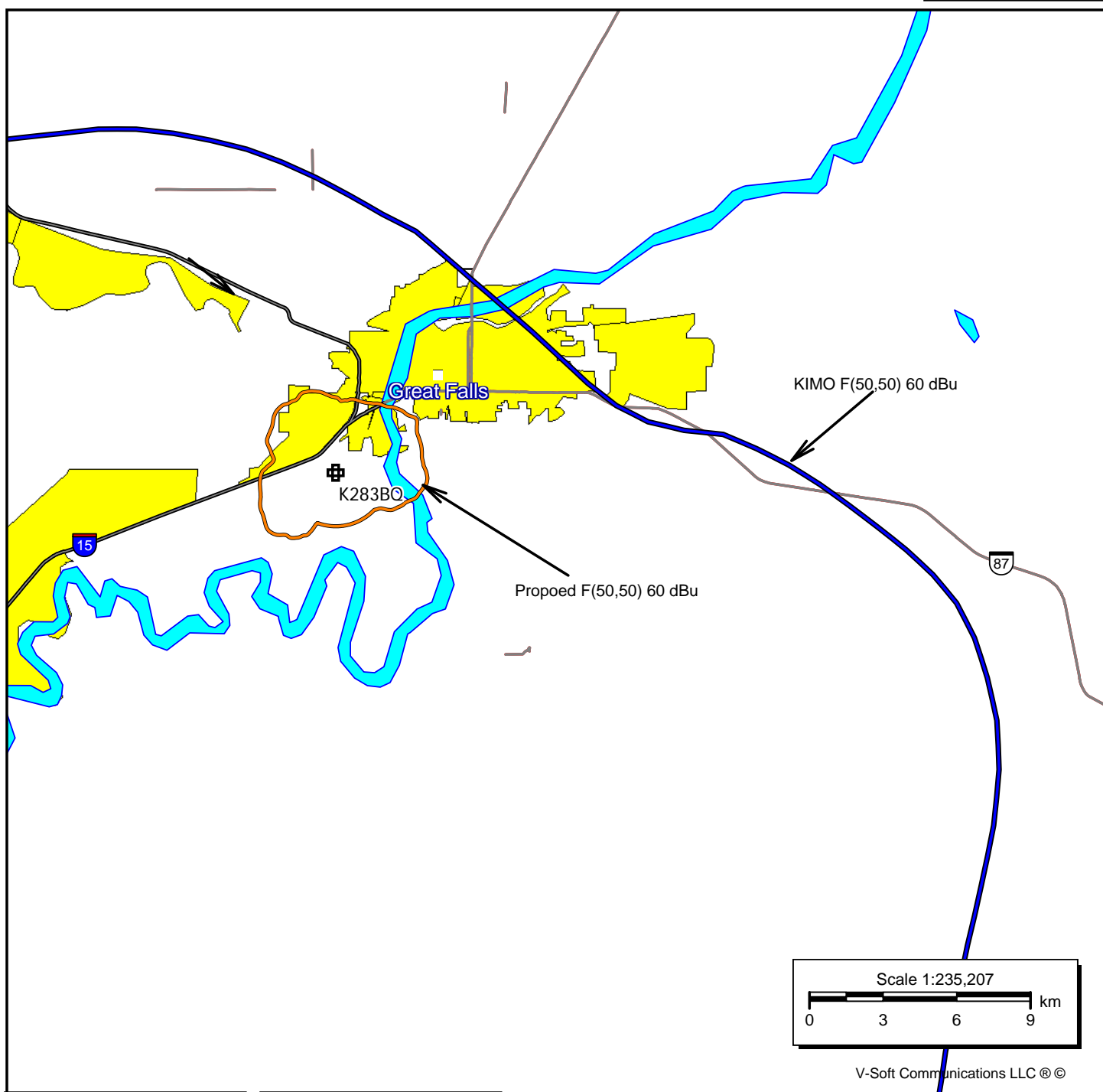
shut down of power if necessary, shall be taken to ensure that the human exposure to radiofrequency radiation will not exceed the FCC guidelines.

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 1

**Primary Station Protected Contour
vs.
Proposed Translator Protected Contour**



K283BQ

Proposed
Channel: 282D
Frequency: 104.3 MHz
Latitude: 47-27-52 N
Longitude: 111-21-18 W
COR AGL Height: 5.0 m
COR AMSL Height: 1131.0 m
Base Elevation: 1126.0 m
COR HAAT: 65.3 m
ERP: 0.002 kW
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

KIMO

BLH20111017AAN
Channel: 297C
Frequency: 107.3 MHz
Latitude: 46-49-30 N
Longitude: 111-42-13 W
COR AGL Height: 19.0 m
COR AMSL Height: 2376.0 m
Base Elevation: 2357.0 m
COR HAAT: 659.0 m
ERP: 86.00 kW
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

Exhibit 2

Section 74.1204 Interference Tabulations

K283BQ on Channel 282 Great Falls, MT

Section 74.1204 Overlap Study

REFERENCE
47 27 52.0 N.
111 21 18.0 W.CH# 282D - 104.3 MHz, Pwr= 0.002 kW, HAAT= 65.3 M, COR= 1131 M
Average Protected F(50-50)= 3.12 km
Omni-directionalDISPLAY DATES
DATA 09-06-12
SEARCH 10-07-12

CH CITY	CALL	TYPE ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
285C Cascade	KIKF	LIC_CX MT	142.5 322.7	42.74 BLH20011210ABW	47 09 34.0 111 00 39.0	94.000 621	15.3 2179	96.4 Staradio Corp.	25.3	-53.7*
283D Great Falls	K283BQ	LIC_C_ MT	0.0 0.0	0.00 BLFT20120416AAW	47 27 52.0 111 21 18.0	0.090	12.8 1151	9.2 The Montana Radio Company,	-15.9*	-13.5*
283D Lakeside	K283BP	APP_C_ MT	200.5 20.2	75.84 BMPFT20120730ABF	46 49 30.0 111 42 13.0	0.250	45.4 2369	29.1 Hi-Line Radio Fellowship,	28.3	43.8
283D Lakeside	K283BP	CP_C_ MT	200.5 20.2	75.84 BPFT20111206AAC	46 49 30.0 111 42 13.0	0.210	43.4 2369	27.9 Hi-Line Radio Fellowship,	30.2	45.0
283D Lakeside	K283BP	USR_ MT	200.5 20.2	75.85	46 49 30.0 111 42 13.0	0.210 652	43.4 2369	27.9	30.2	45.0
281C3 East Helena	KHKR-FM	LIC_CN MT	213.5 33.0	92.41 BLH19951201KD	46 46 11.0 112 01 25.0	5.000 199	58.1 1503	39.2 Ccr-helena ltv, Lic	31.2	48.7

Terrain database is NGDC 30 SEC, R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference zone= , Co to 3rd adjacent.

All separation margins (if shown) include rounding

Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside protected contour.

Exhibit 2B

**Satellite Picture of
F(50,10) Interfering Contour**



Google Earth Pro

