

K235BW
Helena, MT
Proposed Minor Modification
of Licensed Translator Facility

Application Overview:

The Applicant proposes to modify BLFT-20120918AAC using the following parameters:

Tech Box:

Channel:	235
Antenna Coordinates:	N46-46-07, W112-01-21 (NAD 27)
ASRN:	N/A
Tower Site Base AMSL:	1488 m
Overall Tower Height AGL:	58 m
COR AGL:	30 m
ERP:	0.25 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 (Fully Spaced):

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.

Proposed Translator to Combine into a Shared Antenna:

The signal of the proposed Translator is to be combined into an antenna contemporaneously proposed for use by the following station:

- K242CX Helena MT (see BMPFT-20170602AAZ)

Therefore, the applicant agrees to make sufficient measurements to establish that the operation of the Translator is in compliance with the spurious emissions requirements of 47 C.F.R. Sections 73.317(b) through 73.317(d). All measurements will be made with all stations simultaneously into the combined antenna and will be submitted to the Commission along with the FCC Form 350 application for license.

Proposed Translator Located Below Other Directional Antennas:

Since the proposed Translator antenna is located below the other previously authorized directional facility on the tower (namely, K226BI Helena, MT), it will have no effect on the antenna pattern of the previously authorized K226BI.

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 EPA Type 3: Opposed U Dipole antenna with 2 sections and 0.5 wavelength spacing, and the AGL height and ERP proposed in this application as well as that which is proposed in the contemporaneous K242CX Modification Application (see BMPFT-20170602AAZ), the highest predicted power density 2 meters above ground is less than 2.5% of the Uncontrolled Standard with a Power Density of 5.06 microwatts per square centimeter 44.2 meters from the base of the tower.

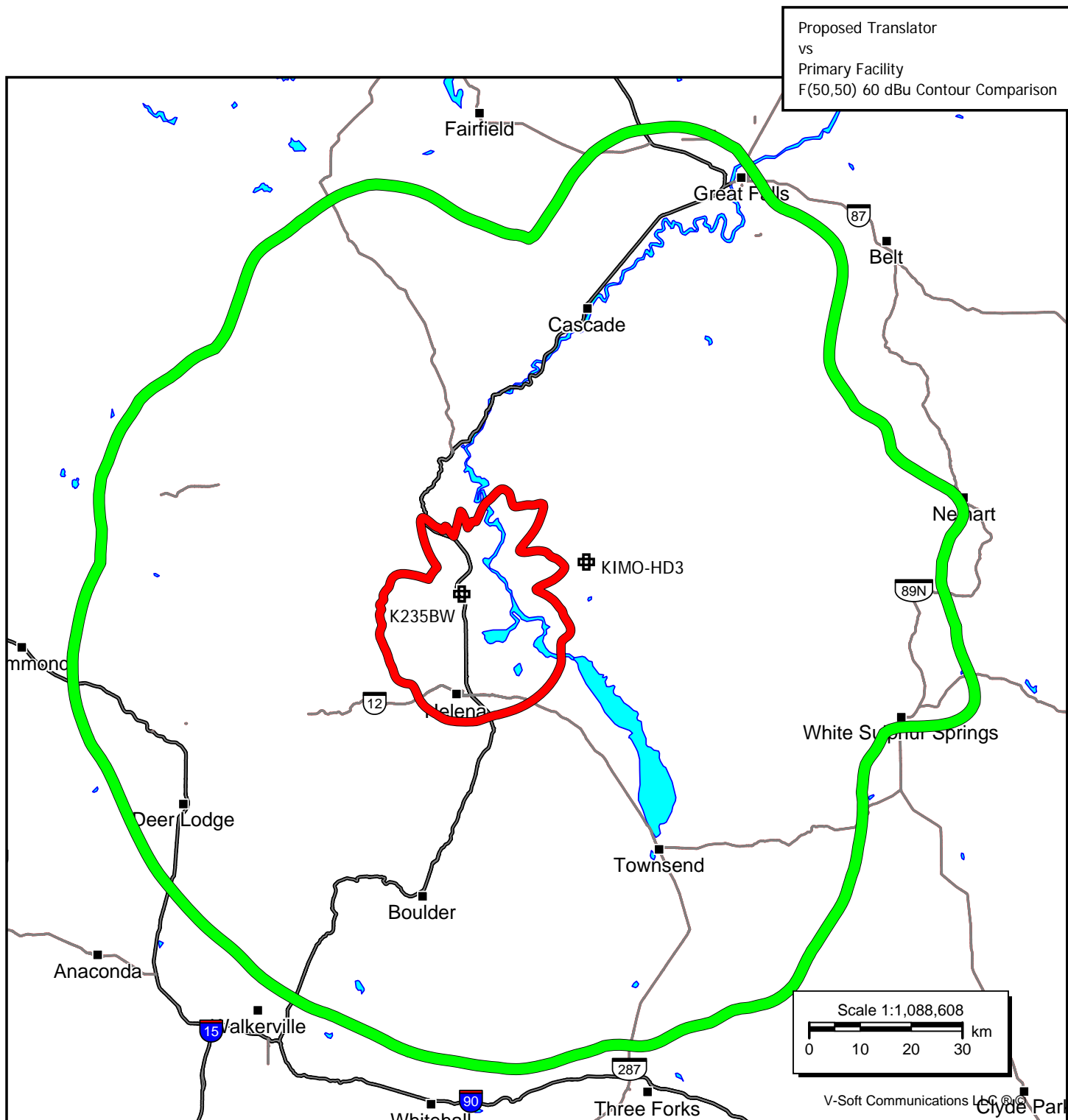
Even though the site will fully comply with the Uncontrolled Site Standards, access to the transmitting site will be restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary, 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**

**K235BW**

Proposed Mod of Lic.
Channel: 235D
Frequency: 94.9 MHz
Latitude: 46-46-07 N
Longitude: 112-01-21 W
COR AGL Height: 30.0 m
COR AMSL Height: 1518.0 m
Base Elevation: 1488.0 m
COR HAAT: 0.0 m
ERP: 0.25 kW
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

KIMO-HD3

BLH20160629ACE
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

K235BW Helena, MT Section 74.1204 Overlap CH# 235D - 94.9 MHz, Pwr= 0.25 kW, HAAT= 0.0 M, COR= 1518 M Average Protected F(50-50)= 7.09 km Omni-directional											
REFERENCE 46 46 07.0 N. 112 01 21.0 W.										DISPLAY DATES DATA 05-27-17 SEARCH 06-02-17	
CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
235D Helena	K235BW	LIC_C_	MT	75.4 255.6	25.13 BLFT20120918AAC	46 49 30.0 111 42 13.0	0.250 646	110.1 2369	43.0 The Montana Radio Company,	-105.7*	-81.3*
235C Missoula	KYSS-FM	LIC_CX	MT	281.8 100.4	152.89 BLH20060912ABJ	47 01 57.0 113 59 30.0	63.000 729	170.6 2312	73.5 Townsquare Media Missoula	-31.6*	32.1
238C Butte	KMBR	LIC_CN	MT	201.0 20.7	90.48 BLH19800128AE	46 00 29.0 112 26 30.0	50.000 555	10.5 2544	81.8 Ccr-butte Iv, Lic	57.6	7.5
234D Mcqueen	K234AT	LIC_V_	MT	201.0 20.7	90.48 BLFT20070621AAI	46 00 29.0 112 26 30.0	0.250 545	46.1 2524	29.6 Ccr-butte Iv, Lic	21.9	27.4
234D Mcqueen	K234AT	CP DV_	MT	201.0 20.7	90.48 BPFT20170503AAZ	46 00 29.0 112 26 30.0	0.250	39.2 2524	25.4 Ccr-butte Iv, Lic	28.8	31.6
234D Mcqueen	K234AT	APP DV_	MT	201.0 20.7	90.48 BPFT20170331ABK	46 00 29.0 112 26 30.0	0.250	39.2 2524	25.4 Ccr-butte Iv, Lic	28.8	31.6
236C1 Bozeman	KMMS-FM	LIC_CY	MT	143.5 324.3	150.88 BLH19860825KA	45 40 24.0 110 52 02.0	100.000 238	90.0 2097	60.2 Townsquare Media Bozeman L	35.9	52.8
233C1 Great Falls	KMON-FM	LIC_CY	MT	33.6 214.2	103.24 BLH19970418KC	47 32 19.0 111 15 41.0	100.000 151	7.4 1211	60.0 Ccr-great Falls Iv, Lic	75.2	37.0

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. Call signs with strikeout need not be protected.
 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 restricted contour.