

K274BY
St. John, ND
Proposed Minor Modification
of Licensed Translator Facility

Application Overview:

The Applicant proposes to modify BLFT-20120216AER using the following parameters:

Tech Box:

Channel:	220
Antenna Coordinates:	N48-56-10, W99-56-51 (NAD 27)
ASRN:	1249910
Tower Site Base AMSL:	687 m
Overall Tower Height AGL:	87 m
COR AGL:	80 m
ERP:	Vertically Polarized 0.092 kW
Directional Antenna:	No

NCE Statement:

The instant facility is licensed to Hi-Line Radio Fellowship, Inc., a noncommercial educational entity. The instant facility has operated continuously for more than two years on non-reserved Channel 274. Therefore the applicant is requesting permission to move to its I.F. channel in the reserved band so that it may begin delivering the input signal to the translator via

satellite – a much more reliable method in underserved areas such as rural north central North Dakota.

Since the proposed translator is not a “fill-in” translator, the facility’s MERP has been calculated in accordance with Section 74.1235(b). As can be seen in Exhibit 3, the MERP for the instant facility using a non-directional antenna is limited to 0.092 kW and, therefore, the instant proposal complies with Section 74.1235(b).

Interference Study (No Overlap)

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.

Contour Map:

Exhibit 3 includes a map illustrating the proposed F(50,50) 60 dBu contour for the facility.

No Other Co-Located Emitters:

No other 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 0.2% of the Uncontrolled Standard with a Power Density of 0.48 microwatts per square centimeter 18 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

MERP Calculations

Transmitter Information:

Call Letters: K274BY
File Number: BLFT20120216AER
Latitude: 48-56-10 N
Longitude: 099-56-51 W
ERP: 0.092 kW
Channel: 220
Frequency: 91.9 MHz
AMSL Height: 767.0 m
Elevation: 687.0 m
HAAT: 128.7 m
Horiz. Antenna Pattern: Omni
Vert. Elevation Pattern: No

Azimuth (deg)	Distance (km)	HAAT (m)
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0.0	11.21	124.6
30.0	12.35	150.7
60.0	12.02	143.4
90.0	11.25	125.7
120.0	11.35	128.1
150.0	11.51	131.7
180.0	12.99	165.4 ***MAX***
210.0	12.56	155.4
240.0	11.37	128.4
270.0	10.68	112.3
300.0	9.58	89.6
330.0	9.21	82.7

Exhibit 2

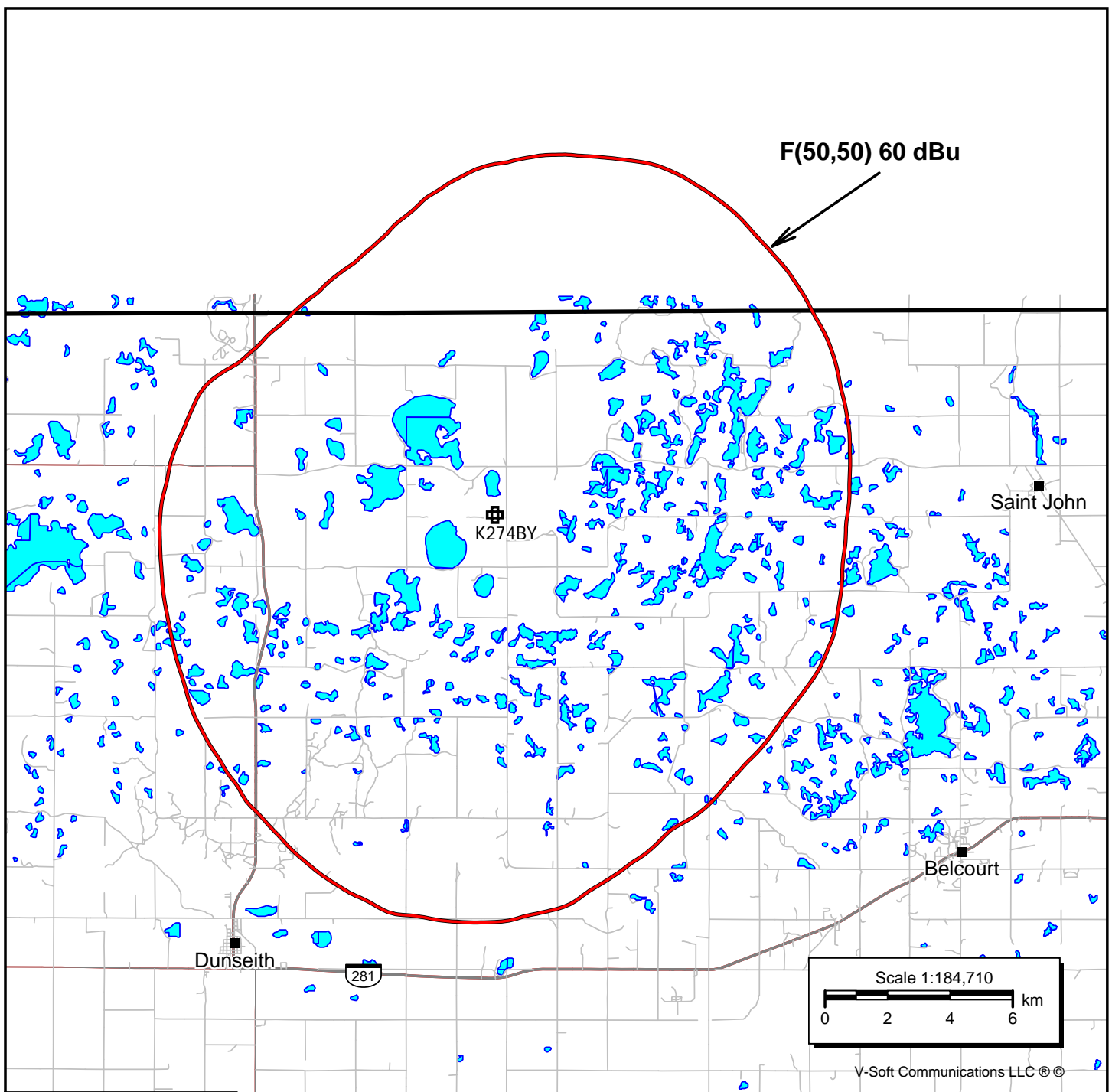
Section 74.1204 Interference Tabulations

K274BY St. John, ND, on Channel 220 Section 74.1204 Contour Overlap Study CH# 220D - 91.9 MHz, Pwr= 0.092 kW, HAAT= 128.7 M, COR= 767 M Average Protected F(50-50)= 11.38 km Omni-directional											
REFERENCE										DISPLAY DATES	
48 56 10.0 N.										DATA 03-17-13	
99 56 51.0 W.										SEARCH 03-24-13	
CH CITY	CALL	TYPE STATE	ANT <--	AZI FILE #	DIST LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*	
219C2 Devils Lake	KPPD	LIC _CX ND	154.9 335.3	107.07 BLED20090720ACM	48 03 47.8 99 20 08.7	24.000 214	74.8 686	50.7 Prairie Public Broadcastin	20.5	39.2	
220B Bellegarde	CBKF-4«	OPE _CN SK	299.1 117.9	135.26	49 30 55.0 101 34 51.0	4.700 106	112.2 662	41.1	111.5R	23.8M	
218C Brandon	R53714«	____ MB	355.6 175.5	150.27	50 17 00.0 100 06 37.0	100.000 600	13.9 1179	97.0	93.5R	56.8M	
06 □□ Winnipeg	VACANT«	GR _HN MB	61.3 243.2	199.92 BPFS20081124AKT	49 46 15.0 97 30 35.0	2.400 300	0.7 536	58.6	130.5R	69.4M	
06-2 Winnipeg	CBWT«	GR _HN MB	61.3 243.2	199.92	49 46 15.0 97 30 35.0	100.000 308	0.7 544	58.6 Canadian Bcting Corp	130.5R	69.4M	
06 □□ Dauphin	VACANT«	GR _HN MB	354.7 174.5	228.69 BPFS20081121AFZ	50 59 00.0 100 15 00.0	2.400 300	0.7 632	58.6	130.5R	98.2M	
06+2 Dauphin	304872«	OP _HN MB	354.7 174.5	228.69 BPFS	50 59 00.0 100 15 00.0	8.300 54	0.7 536	58.6	130.5R	98.2M	
06-2 willow Bunch	CKCKTV2«	GR _HN SK	278.5 94.2	417.47	49 20 58.0 105 38 08.0	17.500 263	0.7 1061	58.6 Transcanada Comm Ltd	130.5R	287.0M	
06 □□ willow Bunch	CKCK-TV-2«	GR _HN SK	278.5 94.2	417.47 BPFS20090105ACM	49 20 58.0 105 38 08.0	3.272 263	0.7 1061	58.6	130.5R	287.0M	

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)
 « = Station meets FCC minimum distance spacing for its class.

Exhibit 3

F(50,50) 60 dBu Contour Map



K274BY

Proposed
Channel: 220D
Frequency: 91.9 MHz
Latitude: 48-56-10 N
Longitude: 099-56-51 W
COR AGL Height: 80.0 m
COR AMSL Height: 767.0 m
Base Elevation: 687.0 m
COR HAAT: 128.7 m
ERP: 0.092 kW
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

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