

KQEO-FM1

Pocatello

Proposed Minor Modification
of Permitted Booster Facility

Application Overview:

The Applicant proposes to modify BNPFTB-20081007AKK using the following parameters at the new community of license of Pocatello, ID:

Tech Box:

Channel:	296
Antenna Coordinates:	N42-50-55, W112-26-45 (NAD 27)
ASRN:	N/A
Tower Site Base AMSL:	1428 m
Overall Tower Height AGL:	21 m
COR AGL:	19 m
ERP:	2.2 kW
Directional Antenna:	Yes - see Exhibit 4

Primary Station and Booster Protected Contour Relationship:

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

Interference Study:

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 co-channel translator K296EA Pocatello.

K296EA has been granted a displacement permit to change channels to Channel 233 pursuant to BPFT-20100510AVD. The licensee of K296EA has informed the applicant that it will either cease operations or implement its construction permit immediately prior to the instantly proposed facility commencing operations. As such, the applicant would not object to having such a special operating condition placed on the requested permit.

Co-Located Directional Emitter:

The proposed facility will be mounted above the permitted facilities of KSNA-FM1 on the same tower. KSNA-FM1 will utilize a directional antenna from Shively Labs. The instant directional pattern proposed for KQEO-FM1 will also utilize a directional Shively Antenna. As such, Shively Labs designed the KSNA-FM1 directional pattern with the future KQEO-FM1's feedline passing through its aperture. The KSNA-FM1 construction permit was granted on May 10, 2011, and will be constructed the week of May 16. When it is constructed, the feedline for the instantly proposed facility will be installed and capped off until the KQEO-FM1 antenna is installed once the instantly requested permit is granted. As such, the installation of the proposed KQEO-FM1 antenna above the recently permitted KSNA-FM1 antenna with its feedline passing through the KSNA-FM1 aperture will have no effect on the KSNA-FM1 directional pattern as it was considered in KSNA-FM1's pattern creation and, in fact, is relied upon.

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 Shively 6810 antenna for KQEO-FM1 with 2 sections and 0.5 wavelength spacing, and the AGL height and ERP proposed in this application, the highest predicted power density 2 meters above ground is less than 21.4% of the Uncontrolled Standard with a Power Density of 42.8 microwatts per square centimeter 31 meters from the base of the tower.

Using the Shively 6810 antenna for KSNA-FM1 with 2 sections and 0.5 wavelength spacing, and the AGL height and ERP permitted in BMPFTB-20110330ACI, the highest predicted power density 2 meters above ground is less than 36.7% of the Uncontrolled Standard with a Power Density of 73.35 microwatts per square centimeter 23.6 meters from the base of the tower.

By simply summing the highest predicted power density 2 meters above ground, the result is less than 58.1% of the Uncontrolled Standard with a Power Density of 116.15 microwatts per square centimeter from 23.6 to 31 meters from the base of the tower. Therefore, the proposed facility in addition to the permitted KSNA-FM1 facility will comply with the Uncontrolled Standard.

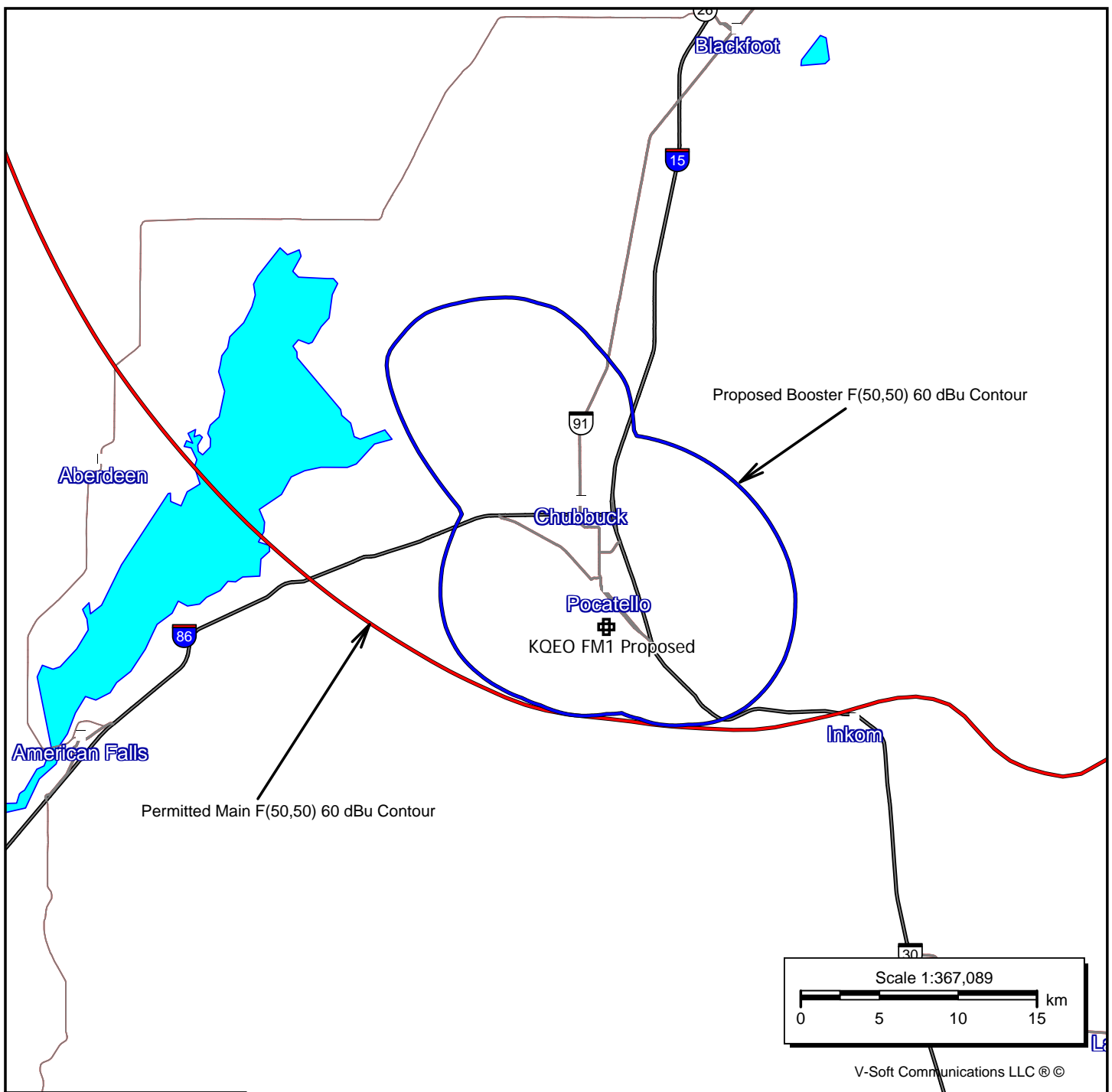
Even though the site will fully comply with the Uncontrolled Site Standards, access to the transmitting site will be restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down of power if necessary,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

Existing Tower:

The proposed tower already exists and the proposed facility will not pose any environmental or historical impact on NEPA/SHPO.

Exhibit 1

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



KQEO FM1 Proposed
 (Proposed)
 Channel: 296D
 Frequency: 107.1 MHz
 Latitude: 42-50-55 N
 Longitude: 112-26-45 W
 COR AGL Height: 19.0 m
 COR AMSL Height: 1447.0 m
 Base Elevation: 1428.0 m
 COR HAAT: -190.2 m
 ERP: 2.20 kW
 Horiz. Pattern: Directional
 Vert. Pattern: No
 Prop Model: None

KQEO.C
 BPH20080331AKU
 Channel: 296C1
 Frequency: 107.1 MHz
 Latitude: 43-21-06 N
 Longitude: 112-00-29 W
 COR AGL Height: 49.0 m
 COR AMSL Height: 1789.0 m
 Base Elevation: 1740.0 m
 COR HAAT: 193.0 m
 ERP: 100.00 kW
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: None

Exhibit 2

Section 74.1204 Interference Tabulations

KQEO-FM1 Pocatello, ID											
Section 74.1204 Contour Overlap Tabulations											
REFERENCE		CH#	296D	-	107.1 MHz, Pwr= 2.2 kW DA, HAAT= -190.2 M,	COR= 1447 M			DISPLAY DATES		
42 50 55.0 N.		Average Protected F(50-50)= 12.28 km						DATA 05-09-11		SEARCH 05-10-11	
112 26 45.0 W.		Standard Directional									
CH	CALL	TYPE	ANT	AZI	DI ST	LAT	PWR(kW)	INT(km)	PRO(km)	*IN*	*OUT*
CITY		STATE		<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
296C1	KQEO	CP	CX	32.3	66.3	43 21 06.0	100.000	172.2	72.6	-118.2*	-53.4*
Idaho Falls		ID		212.6	BPH20080331AKU	112 00 29.0	193	1789	Sandhill Media Corporation		
296C1	KQEO	LIC	NC	30.3	89.6	43 32 33.0	82.000	165.1	68.9	-87.8*	-26.4
Idaho Falls		ID		210.7	BLH20030408ABD	111 53 04.0	182	1730	Sandhill Media Corporation		
296D	K296EA	LIC	DHN	89.7	6.9	42 50 56.0	0.051	27.6	6.4	-32.7*	-44.2
Pocatello		ID		269.8	BLFT19891220TH	112 21 43.0	444	2080	Frandsen Media Company LLC		
296D	KQEO-FM1	CP	C	10.0	36.0	43 10 04.0	0.950	35.0	10.0	-11.3	-21.1
Blackfoot		ID		190.0	BNPFTB20081007AKK	112 22 08.0		1398	Sandhill Media Corporation		
296D	K296AQ	LIC	CN	111.1	67.0	42 37 48.0	0.109	71.4	22.5	-15.2*	5.5
Soda Springs, Etc.		ID		291.6	BLFT145	111 41 00.0	328	2148	Caribou County Tv		
298D	K298BE	LIC	V	216.1	5.5	42 48 30.0	0.010	0.2	14.6	-1.1*	-10.0*
Pocatello		ID		36.1	BLFT20110119ADR	112 29 09.0	584	2204	University Of Utah		
294D	630188	APP	V	216.3	5.5	42 48 31.0	0.010	0.2	14.0	-1.1*	-9.4*
Pocatello		ID		36.2	BNPFT20030310AXY	112 29 09.0	523	2143	Calvary Chapel Of Twin Falls		
293D	632862	APP	C	216.3	5.5	42 48 31.0	0.008	0.2	13.1	-1.1*	-8.4*
Pocatello		ID		36.2	BNPFT20030317ACZ	112 29 09.0	529	2149	Bible Broadcasting Network		
294D	645774	APP	C	6.0	12.2	42 57 28.0	0.250	1.1	9.5	-3.5*	1.1
Pocatello		ID		186.0	BNPFT20030317MFD	112 25 49.0	30	1506	Idaho Wireless Corporation		
295C	KEGH	LIC	NCX	171.5	119.5	41 47 03.0	81.000	115.6	78.1	-1.6	33.6
Brigham City		UT		351.6	BLH20021009AAU	112 13 55.0	660	2145	SLC Divestiture Trust LLC		
296C	AL2534	RSV-A		150.2	244.0	40 56 07.0	100.000	215.8	102.2	21.0	117.9
Woodruff		UT		331.1	RM11363	111 00 03.0	600	3127			
296C	KEGH	CP	HX	150.9	250.5	40 52 16.0	89.000	214.5	101.5	28.9	125.2
Woodruff		UT		331.8	BPH20080328AAL	110 59 43.0	647	3330	SLC Divestiture Trust LLC		
294C	KYUN	LIC	NC	289.6	147.1	43 16 45.0	100.000	12.6	86.8	123.5	58.7
Hailey		ID		108.5	BLH20061103AAJ	114 09 14.0	481	2000	Locally Owned Radio, LLC		

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.
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 4

Proposed Directional Pattern Azimuth Tabulations

Antenna Pattern

Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	1.0
10.0	1.0
20.0	1.0
30.0	1.0
40.0	1.0
50.0	1.0
60.0	1.0
70.0	1.0
80.0	0.98
90.0	0.93
100.0	0.868
110.0	0.78
120.0	0.68
130.0	0.56
140.0	0.434
150.0	0.344
160.0	0.258
170.0	0.206
180.0	0.204
190.0	0.218
200.0	0.238
210.0	0.258
220.0	0.282
230.0	0.328
240.0	0.402
250.0	0.49
260.0	0.59
270.0	0.678
280.0	0.748
290.0	0.806
300.0	0.85
310.0	0.904
320.0	0.964
330.0	1.0
340.0	1.0
350.0	1.0

Rotation Angle = 0

