

**Technical Certifications Exhibit**

This minor modification of licensed facility complies with all engineering standards and assignment requirements specified in the applicable FCC rules and regulations. This application proposes a change from channel 215 to channel 214 due to displacement by KHAL (CP), channel 216C3, Craig, CO (Facility ID 767297).

K215BS complies with Section 74.1235(j) to continue operating with its currently licensed ERP of 0.051 kW, which does not comply with the ERP limitations of Section 74.1235(b), as K215BS was authorized prior to June 1, 1991 (original construction permit BPFT-19901214TD granted on February 28, 1991). There are no changes to the technical parameters of K215BS other than the channel change as indicated below:

	Licensed	Minor Mod of Licensed Facility
Channel / Class	215D	214D
ASRN	N/A	N/A
Geographical coordinates	40 33 49.8 107 36 43.2	40 33 49.8 107 36 43.2
Site elevation	2283.0 m	2283.0 m
Tower AGL	15.0 m	15.0 m
Antenna COR AGL	7.0 m	7.0 m
Antenna COR AMSL	2290.0 m	2290.0 m
HAAT	277.0 m	276.5 m
ERP	0.051 kW (H&V, DA)	0.051 kW (H&V, DA)
ANTENNA	SCALA CA5-FM/CP/RM/1	SCALA CA5-FM/CP/RM/1

FCC 30 second terrain data

Tabulation of HAAT / ERP / distance to 60 dBu contour

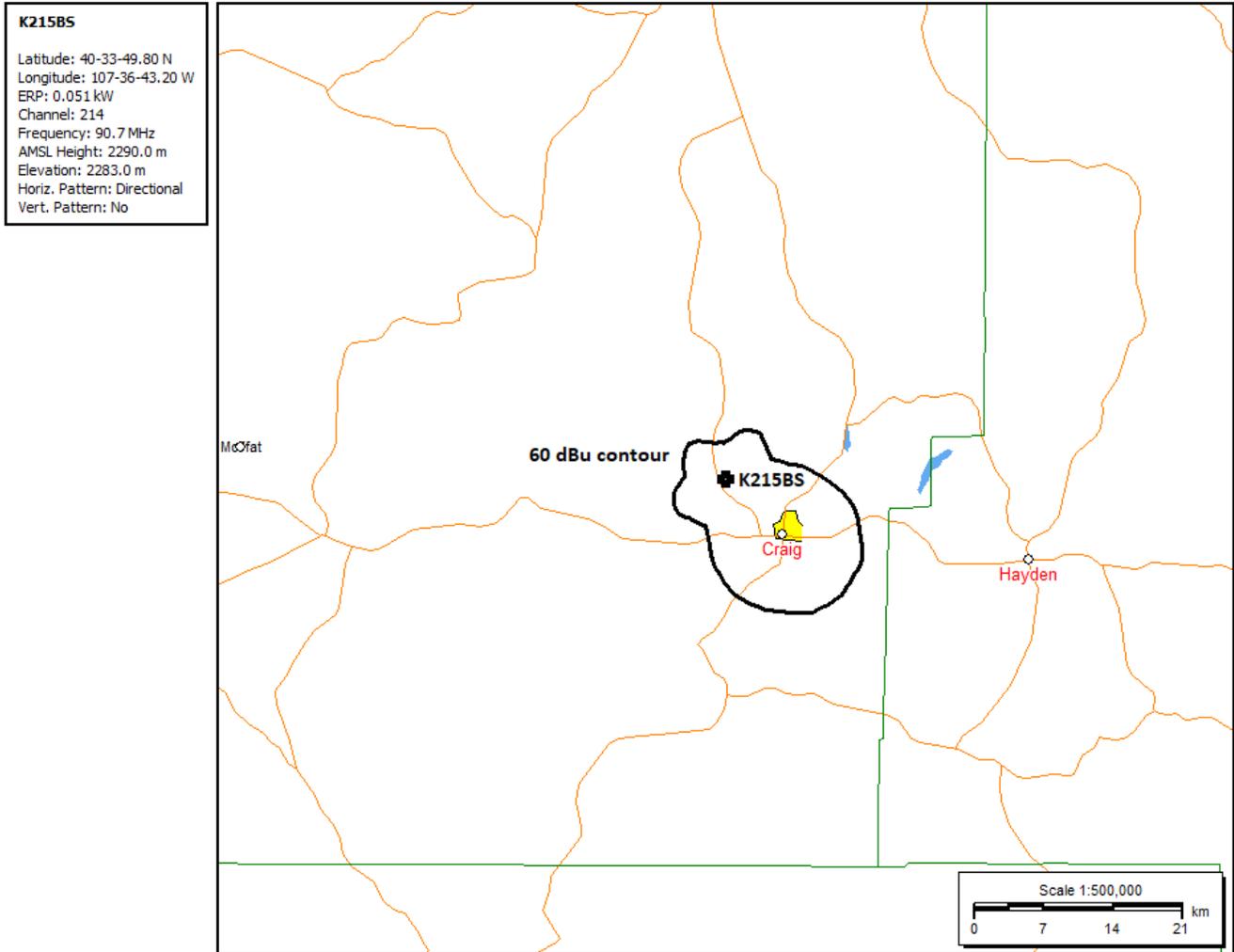
CH 214D 40 33 49.8 / 107 36 43.2 0.051 kW ERP (H&V, DA) 2290.0 m COR AMSL 276.5 m HAAT

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	2113.1	176.9	0.0009	-30.51	0.132	3.94
010	2089.4	200.6	0.0012	-29.12	0.155	4.57
020	2058.0	232.0	0.0016	-27.87	0.179	5.31
030	2032.9	257.1	0.0017	-27.63	0.184	5.64
040	2011.7	278.3	0.0015	-28.37	0.169	5.52
050	1998.7	291.3	0.0011	-29.40	0.150	5.18
060	1981.0	309.0	0.0010	-30.13	0.138	4.97
070	1965.3	324.7	0.0013	-28.73	0.162	5.66
080	1963.5	326.5	0.0034	-24.66	0.259	7.75
090	1980.0	310.0	0.0093	-20.30	0.428	10.10
100	1958.7	331.3	0.0198	-17.03	0.623	12.59
110	1962.7	327.3	0.0320	-14.95	0.792	14.05
120	1941.6	348.4	0.0421	-13.75	0.909	15.53
130	1946.1	343.9	0.0486	-13.14	0.976	16.01
135	1943.9	346.1	0.0510	-12.92	1.000	16.27
140	1941.9	348.1	0.0486	-13.14	0.976	16.11
150	1948.0	342.0	0.0421	-13.75	0.909	15.39
160	1967.4	322.6	0.0320	-14.95	0.792	13.95
170	1967.0	323.0	0.0198	-17.03	0.623	12.43
180	1951.8	338.2	0.0093	-20.30	0.428	10.54
190	1921.2	368.8	0.0034	-24.66	0.259	8.16
200	1957.6	332.4	0.0013	-28.73	0.162	5.70
210	1958.6	331.4	0.0010	-30.13	0.138	5.08
220	1986.7	303.3	0.0011	-29.40	0.150	5.25
230	2002.1	287.9	0.0015	-28.37	0.169	5.60
240	2009.7	280.3	0.0017	-27.63	0.184	5.85
250	2026.3	263.7	0.0016	-27.87	0.179	5.60
260	2016.0	274.0	0.0012	-29.12	0.155	5.17
270	2031.8	258.2	0.0009	-30.51	0.132	4.51
280	2052.9	237.1	0.0008	-30.71	0.129	4.34
290	2065.8	224.2	0.0011	-29.52	0.148	4.64
300	2086.8	203.2	0.0015	-28.26	0.171	4.88
310	2082.5	207.5	0.0018	-27.44	0.188	5.22
320	2103.1	186.9	0.0018	-27.44	0.188	4.99
330	2127.3	162.7	0.0015	-28.26	0.171	4.44
340	2131.5	158.5	0.0011	-29.52	0.148	4.02
350	2116.5	173.5	0.0008	-30.71	0.129	3.86

FCC 30 second Terrain Data  
 (yellow highlighted values establish average HAAT)

60 dBu contour coverage map

The only change specified in this minor modification application is a change from channel 215 to channel 214. There will be no change to the 60 dBu contour coverage.



FCC 30 second terrain data

**Interference Study**

CH 214D 40 33 49.8 / 107 36 43.2 0.051 kW ERP (H&V, DA) 2290.0 m COR AMSL 276.5 m HAAT

CH CITY	CALL	TYPE STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*IN* (Overlap in km)	*OUT*
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**Reference station:**

215D	K215BS	LIC	0.0	0.00	40 33 49.80	0.051				
Craig		CO	0.0	BMLFT20170531AAB	107 36 43.20	277	2290	Educational Media Foundation		

**Co-channel, 1<sup>st</sup>, 2<sup>nd</sup>, & 3<sup>rd</sup> adjacent channel relationships:**

211C2	KHCO	LIC	99.5	73.98	40 27 04.80	1.800	2.9	60.0	56.8	13.5
Hayden		CO	280.0	0000203516	106 45 06.00	522	3140	Educational Media Foundation		
211D	K211EQ	LIC	175.8	111.13	39 33 56.20	0.075	0.6	5.2	96.9	105.6
New Castle		CO	355.9	0000092822	107 31 00.70		1948	Educational Communications		
213C0	KUWZ	LIC	307.6	159.19	41 25 38.80	35.000	107.0	72.7	46.9	78.7
Rock Springs		WY	126.7	BLED20060213ADF	109 07 19.40	512	2680	University Of Wyoming		
213C2	KVOV	LIC	170.7	128.79	39 25 07.90	0.450	64.1	43.1	50.4	66.6
Carbondale		CO	350.9	BLED20040913AAA	107 22 12.10	775	3227	Public Broadcasting Of Col		
214A	KMPB	LIC	130.9	179.77	39 29 43.90	0.600	57.5	17.3	106.7	98.9
Breckenridge		CO	311.9	BLED20130930BUD	106 01 46.00	-76	3246	Community Radio For Northern		
215C0	KLWV	LIC	64.7	199.64	41 18 35.90	100.000	128.8	86.5	60.6	105.1
Chugwater		WY	246.1	0000166073	105 27 18.90	329	2736	Educational Media Foundation		
K216C3	KHAL	CP	8.9	0.18	40 33 55.60	1.600	2.5	38.6	-6.8	-38.5
Craig		CO	188.9	0000167314	107 36 42.00	283	2297	Cheyenne Broadcasting Found		
216D	K216BP	LIC	205.4	63.98	40 02 34.90	0.021	0.3	3.8	54.0	56.1
Meeker		CO	25.2	BLFT19900814TA	107 56 03.20	202	2290	Public Broadcasting Of Col		
216D	K216FW	LIC	99.1	74.62	40 27 15.90	0.010	0.2	16.4	60.1	57.9
Steamboat Springs		CO	279.7	BLFT20050406ABV	106 44 36.10	534	3168	Mercer County Community Co		
217C3	KLRY	LIC	143.2	109.20	39 46 30.00	0.110	0.7	33.0	92.4	75.4
Gypsum		CO	323.7	BLED20051109AAM	106 50 47.10	859	3361	Educational Media Foundation		

**I.F. relationships:**

N/A

**Protection of CH 6 TV**

Per Section 74.1205(a), NCE-FM translator stations operating on channel 214 must provide protection to TV Channel 6 broadcast stations located within a distance of 187 km. There are no TV Channel 6 broadcast stations within this distance, therefore K215BS as proposed is in full compliance with all provisions of Section 74.1205 with regard to Channel 6 TV protection.

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 FCC 30 second terrain data

### Interference Study

K215BS as proposed on channel 214 is located within the protected contour of the following facility:

KHAL (CP), CH 216C3, Craig, CO

KHAL signal strength at the K215BS site	123.8 dBu
K215BS interference contour	163.8 dBu
Distance to K215BS interference contour	0.3 meters

K215BS’s antenna COR AGL height is 7.0 meters. With the interference contour extending out 0.3 meters, no interference will reach the ground with a clearance of 6.7 meters. There are no occupied structures at the site. Therefore, based on the showing of no population within the area of predicted interference a waiver of Section 74.1204(d) is respectfully requested.



### **Environmental Impact & RFR Compliance Statement**

K215BS is located at an established communications site that is in compliance with all environmental impact requirements.

This minor modification application specifies a change in channel only, from channel 215 to channel 214. K215BS will continue to operate with 0.051 kW ERP (H&V) at an antenna COR AGL height of 7.0 meters. For a worse case estimation at 2 meters above ground level the RFR is no more than 68.2% of the general population/uncontrolled MPE limit. There are no other broadcast facilities on the tower.

The site has restricted access to only authorized personnel. The applicant certifies that in cooperation with other users of the site all authorized personnel will be protected from RFR exposure in excess of FCC guidelines while accessing any controlled exposure area, including the tower, by either reducing power or ceasing operations.