



**STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION FOR
A MINOR MODIFICATION OF A
POST REPACK CONSTRUCTION PERMIT
FILE # 0000034879
KFXL-TV - LINCOLN, NEBRASKA
DTV - CH. 15 - 250 kW - 190 HAAT**

Prepared for: KHGI LICENSEE, LLC

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Licensed Professional Engineer in the Commonwealth of Virginia, No. 7418, and in New York State, No. 63418.

GENERAL

This office has been authorized by KHGI LICENSEE, LLC, licensee of KFXL-TV, channel 15, facility ID number 84453, licensed to Lincoln, Nebraska, to prepare this statement, FCC Form 2100, Schedule A, its technical sections, and the associated exhibits in support of an application for a minor modification of its relocation construction permit, File # 0000035803, that authorizes KFXL-TV to relocate its channel 15 facility to a new tower as a result of the collapse of its licensed tower. The instant application proposes to substitute a Dielectric model TFU-16JSC/VP-R O3 antenna for its authorized antenna and to reduce KFXL-TV authorized antenna height AGL from 189.9 meters to 156 meters. The authorized tower aperture has become unavailable requiring the reduction in antenna height AGL. KFXL-TV's ERP will remain at 250 kW. No other changes are herein proposed.

NON-DIRECTIONAL ANTENNA

The applicant proposes to substitute and install a new Dielectric model TFU-16JSC/VP-R O3 non-directional elliptically polarized transmitting antenna instead of its authorized antenna, a Dielectric model TFU-12DSB-A horizontally polarized non-directional antenna. The substitute antenna's center of radiation will be located at a height above ground of 156 meters, and at a height above average terrain of 190 meters. The antenna manufacturer's antenna data, including the horizontal azimuth patterns of both the horizontal and vertical signal components and the vertical plane elevation radiation pattern, illustrating the antenna's radiation characteristics above and below the horizontal plane are shown and tabulated in the antenna exhibit.

CHANGES IN OTHER PARAMETERS

The predicted coverage contours are affected by the reduction in HAAT, and a new exhibit 1 is provided based on the new reduced HAAT. According to a new analysis using *tvstudy* the potential interference to other facilities is reduced, as shown in Appendix B. The Radio Frequency Impact is also affected by the reduction in height AGL and the increase in antenna gain. As shown in Appendix A the proposed KFXL-TV channel 15 modified facility will operate with a maximum ERP of 250 kW from an elliptically polarized non-directional transmitting antenna with a centerline height of 156 meters above ground level (AGL). Considering the elevation pattern submitted elsewhere in this application, the vertical plane relative field factor is less than 0.1 at all depression angles greater than 17 degrees. The KFXL-TV facility is predicted to produce a worst-case power density at two

STATEMENT OF JOHN E. HIDLE, P.E.
KFXL-TV - Lincoln, Nebraska
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meters above ground level, at 154.0 meters from the tower base, of $2.484 \mu\text{W}/\text{cm}^2$, which is 0.78% of the FCC guideline value of $319.33 \mu\text{W}/\text{cm}^2$ for an "uncontrolled" environment, and 0.034% of the FCC's guideline value for "controlled" environments. Therefore, pursuant to Section 1.1307(b)(3) of the FCC Rules, because the proposed facility would not exceed 5% of the uncontrolled and controlled exposure limits, the proposal's power density contribution is considered insignificant. (See Appendix A)

Further, the applicant will continue to cooperate and coordinate with other any other site users and reduce power or cease operation during times of service or maintenance of the transmission systems as necessary to avoid potentially harmful exposure to personnel. In light of the above, the proposed facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules.

The reduction in ERP and increase in antenna gain will affect other parameters, including Allocation Considerations, however other parameters will remain within acceptable limits.

OCCUPATIONAL SAFETY

The licensee of KFXL-TV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the KFXL-TV antenna, and is committed to reducing power or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure protection to personnel.

SUMMARY

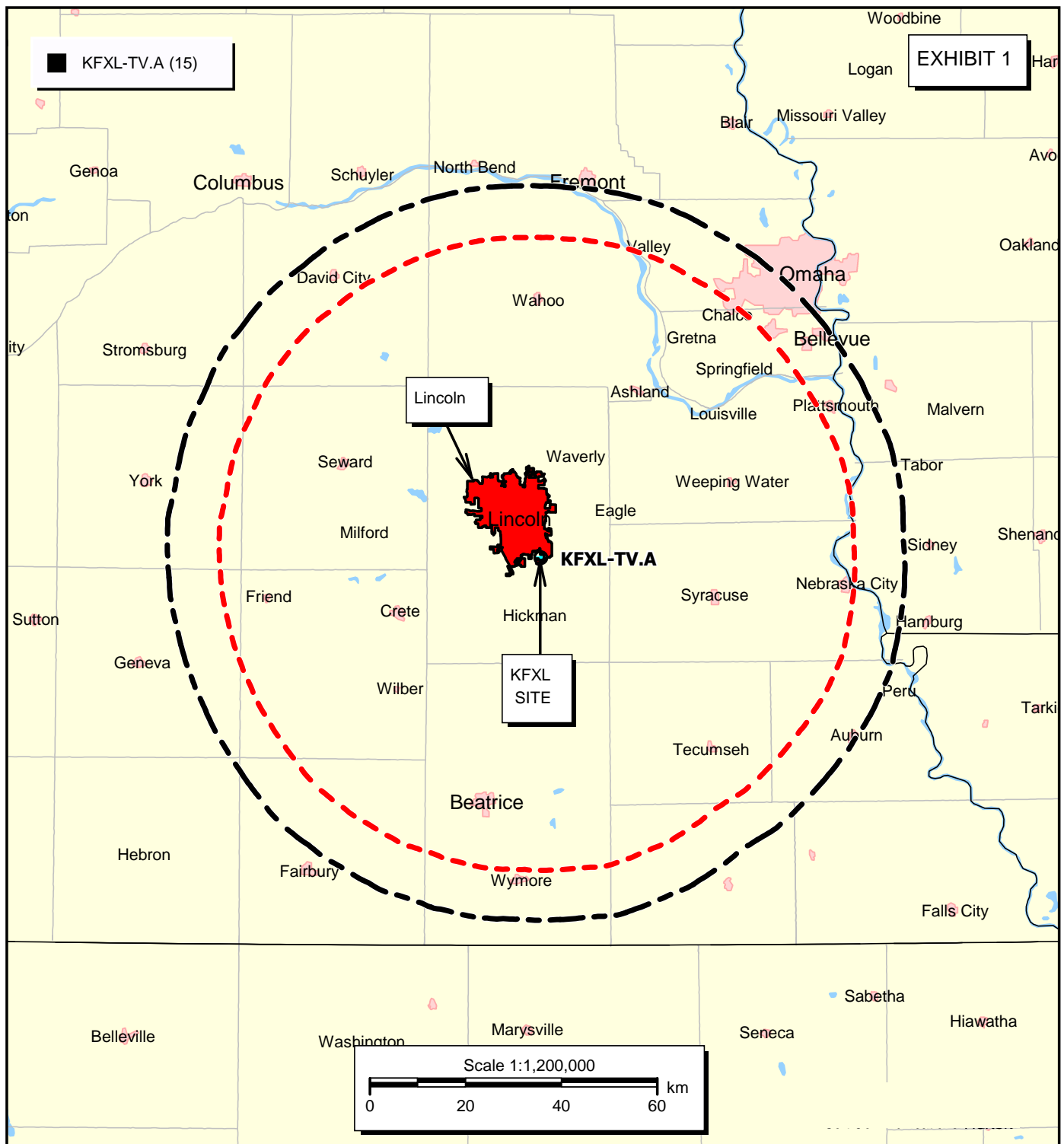
It is submitted that the instant application for a minor modification of its relocation channel 15 construction permit, file # 0000035803, to reduce KFXL-TV's HAAT and to

STATEMENT OF JOHN E. HIDLE, P.E.
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substitute a new non-directional antenna model for its authorized non-directional antenna, as described herein, does comply with the Rules, Regulations and relevant Policies of the Federal Communications Commission. This statement, FCC Form 2100, its technical sections, and the attached exhibits were prepared by me or under my direct supervision and are believed to be true and correct to the best of my knowledge and belief.

DATED: January 28, 2020





PREDICTED COVERAGE CONTOURS

KFXL-TV AP - Lincoln, NE
 DTV Channel 15 - 250 kW ERP - 190 M HAAT
 JAN, 2020

Predicted Noise Limited 38.83 dBu
 F(50,90) Coverage Contour

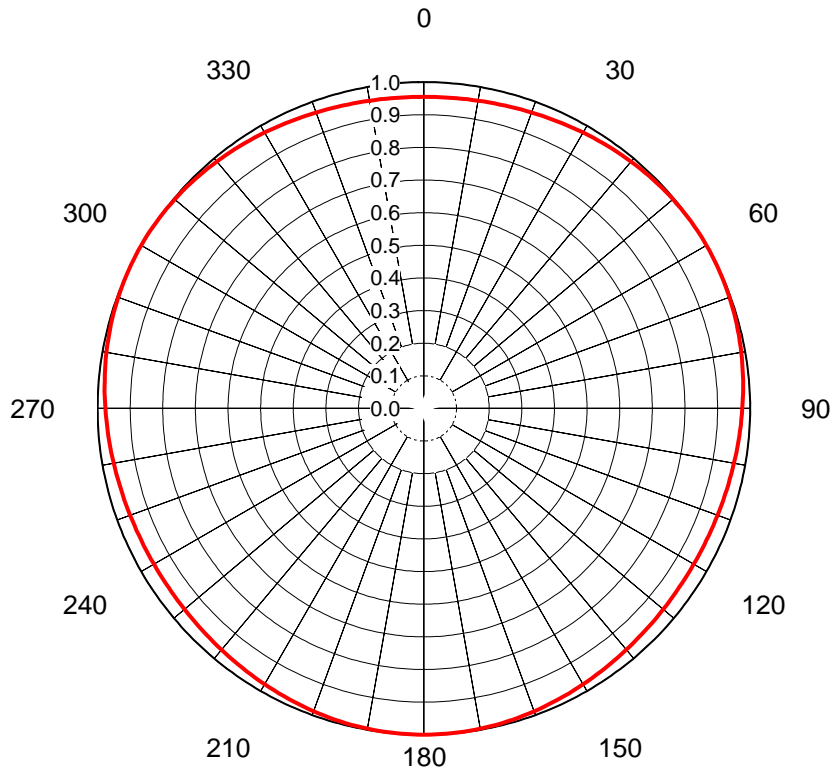


Predicted Principal Community 48 dBu
 F(50,90) Coverage Contour

AZIMUTH PATTERN Horizontal Polarization

In Free Space

Proposal No. **C-71115-1**
Date **14-Sep-18**
Call Letters **KFXL**
Channel **15**
Frequency **479 MHz**
Antenna Type **TFU-16JSC/VP-R O3**
Gain **1.05 (0.2dB)**
Calculated
Circularity **+/- 1.0 dB**



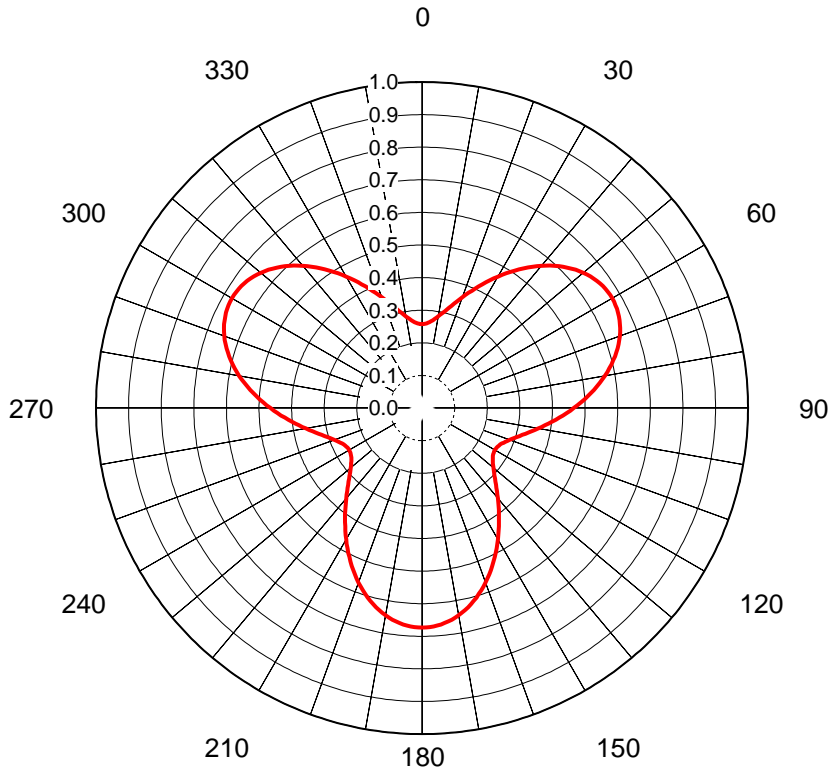
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.955	36	0.983	72	0.995	108	0.959	144	0.969	180	1.000	216	0.969	252	0.959	288	0.995	324	0.983
1	0.955	37	0.984	73	0.994	109	0.958	145	0.970	181	1.000	217	0.968	253	0.959	289	0.996	325	0.982
2	0.955	38	0.986	74	0.994	110	0.958	146	0.972	182	1.000	218	0.967	254	0.960	290	0.997	326	0.981
3	0.955	39	0.987	75	0.993	111	0.957	147	0.973	183	1.000	219	0.966	255	0.961	291	0.997	327	0.980
4	0.955	40	0.988	76	0.992	112	0.957	148	0.974	184	0.999	220	0.965	256	0.962	292	0.998	328	0.979
5	0.956	41	0.989	77	0.991	113	0.956	149	0.975	185	0.999	221	0.964	257	0.963	293	0.998	329	0.977
6	0.956	42	0.990	78	0.990	114	0.956	150	0.976	186	0.999	222	0.963	258	0.963	294	0.999	330	0.976
7	0.956	43	0.991	79	0.989	115	0.956	151	0.977	187	0.998	223	0.963	259	0.964	295	0.999	331	0.975
8	0.957	44	0.992	80	0.988	116	0.955	152	0.979	188	0.998	224	0.962	260	0.965	296	0.999	332	0.974
9	0.957	45	0.993	81	0.987	117	0.955	153	0.980	189	0.997	225	0.961	261	0.966	297	1.000	333	0.973
10	0.958	46	0.994	82	0.986	118	0.955	154	0.981	190	0.997	226	0.960	262	0.967	298	1.000	334	0.972
11	0.958	47	0.994	83	0.984	119	0.955	155	0.982	191	0.996	227	0.959	263	0.968	299	1.000	335	0.970
12	0.959	48	0.995	84	0.983	120	0.955	156	0.983	192	0.995	228	0.959	264	0.969	300	1.000	336	0.969
13	0.959	49	0.996	85	0.982	121	0.955	157	0.984	193	0.994	229	0.958	265	0.970	301	1.000	337	0.968
14	0.960	50	0.997	86	0.981	122	0.955	158	0.986	194	0.994	230	0.958	266	0.972	302	1.000	338	0.967
15	0.961	51	0.997	87	0.980	123	0.955	159	0.987	195	0.993	231	0.957	267	0.973	303	1.000	339	0.966
16	0.962	52	0.998	88	0.979	124	0.955	160	0.988	196	0.992	232	0.957	268	0.974	304	0.999	340	0.965
17	0.963	53	0.998	89	0.977	125	0.956	161	0.989	197	0.991	233	0.956	269	0.975	305	0.999	341	0.964
18	0.963	54	0.999	90	0.976	126	0.956	162	0.990	198	0.990	234	0.956	270	0.976	306	0.999	342	0.963
19	0.964	55	0.999	91	0.975	127	0.956	163	0.991	199	0.989	235	0.956	271	0.977	307	0.998	343	0.963
20	0.965	56	0.999	92	0.974	128	0.957	164	0.992	200	0.988	236	0.955	272	0.979	308	0.998	344	0.962
21	0.966	57	1.000	93	0.973	129	0.957	165	0.993	201	0.987	237	0.955	273	0.980	309	0.997	345	0.961
22	0.967	58	1.000	94	0.972	130	0.958	166	0.994	202	0.986	238	0.955	274	0.981	310	0.997	346	0.960
23	0.968	59	1.000	95	0.970	131	0.958	167	0.994	203	0.984	239	0.955	275	0.982	311	0.996	347	0.959
24	0.969	60	1.000	96	0.969	132	0.959	168	0.995	204	0.983	240	0.955	276	0.983	312	0.995	348	0.959
25	0.970	61	1.000	97	0.968	133	0.959	169	0.996	205	0.982	241	0.955	277	0.984	313	0.994	349	0.958
26	0.972	62	1.000	98	0.967	134	0.960	170	0.997	206	0.981	242	0.955	278	0.986	314	0.994	350	0.958
27	0.973	63	1.000	99	0.966	135	0.961	171	0.997	207	0.980	243	0.955	279	0.987	315	0.993	351	0.957
28	0.974	64	0.999	100	0.965	136	0.962	172	0.998	208	0.979	244	0.955	280	0.988	316	0.992	352	0.957
29	0.975	65	0.999	101	0.964	137	0.963	173	0.998	209	0.977	245	0.956	281	0.989	317	0.991	353	0.956
30	0.976	66	0.999	102	0.963	138	0.963	174	0.999	210	0.976	246	0.956	282	0.990	318	0.990	354	0.956
31	0.977	67	0.998	103	0.963	139	0.964	175	0.999	211	0.975	247	0.956	283	0.991	319	0.989	355	0.956
32	0.979	68	0.998	104	0.962	140	0.965	176	0.999	212	0.974	248	0.957	284	0.992	320	0.988	356	0.955
33	0.980	69	0.997	105	0.961	141	0.966	177	1.000	213	0.973	249	0.957	285	0.993	321	0.987	357	0.955
34	0.981	70	0.997	106	0.960	142	0.967	178	1.000	214	0.972	250	0.958	286	0.994	322	0.986	358	0.955
35	0.982	71	0.996	107	0.959	143	0.968	179	1.000	215	0.970	251	0.958	287	0.994	323	0.984	359	0.955

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AZIMUTH PATTERN Vertical Polarization

In Free Space

Proposal No. **C-71115-1**
Date **14-Sep-18**
Call Letters **KFXL**
Channel **15**
Frequency **479 MHz**
Antenna Type **TFU-16JSC/VP-R O3**
Gain **1.9 (2.79dB)**
Circularity **+/- 5.0 dB**



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.258	36	0.530	72	0.634	108	0.297	144	0.401	180	0.673	216	0.401	252	0.297	288	0.634
1	0.258	37	0.540	73	0.627	109	0.291	145	0.412	181	0.673	217	0.391	253	0.304	289	0.640
2	0.259	38	0.550	74	0.620	110	0.286	146	0.422	182	0.672	218	0.381	254	0.311	290	0.645
3	0.260	39	0.560	75	0.612	111	0.280	147	0.433	183	0.671	219	0.371	255	0.319	291	0.651
4	0.262	40	0.569	76	0.605	112	0.276	148	0.444	184	0.669	220	0.362	256	0.327	292	0.655
5	0.265	41	0.579	77	0.596	113	0.272	149	0.455	185	0.666	221	0.352	257	0.335	293	0.660
6	0.268	42	0.588	78	0.588	114	0.268	150	0.466	186	0.663	222	0.343	258	0.343	294	0.663
7	0.272	43	0.596	79	0.579	115	0.265	151	0.476	187	0.660	223	0.335	259	0.352	295	0.666
8	0.276	44	0.605	80	0.569	116	0.262	152	0.487	188	0.655	224	0.327	260	0.362	296	0.669
9	0.280	45	0.612	81	0.560	117	0.260	153	0.498	189	0.651	225	0.319	261	0.371	297	0.671
10	0.286	46	0.620	82	0.550	118	0.259	154	0.509	190	0.645	226	0.311	262	0.381	298	0.672
11	0.291	47	0.627	83	0.540	119	0.258	155	0.519	191	0.640	227	0.304	263	0.391	299	0.673
12	0.297	48	0.634	84	0.530	120	0.258	156	0.530	192	0.634	228	0.297	264	0.401	300	0.673
13	0.304	49	0.640	85	0.519	121	0.258	157	0.540	193	0.627	229	0.291	265	0.412	301	0.673
14	0.311	50	0.645	86	0.509	122	0.259	158	0.550	194	0.620	230	0.286	266	0.422	302	0.672
15	0.319	51	0.651	87	0.498	123	0.260	159	0.560	195	0.612	231	0.280	267	0.433	303	0.671
16	0.327	52	0.655	88	0.487	124	0.262	160	0.569	196	0.605	232	0.276	268	0.444	304	0.669
17	0.335	53	0.660	89	0.476	125	0.265	161	0.579	197	0.596	233	0.272	269	0.455	305	0.666
18	0.343	54	0.663	90	0.466	126	0.268	162	0.588	198	0.588	234	0.268	270	0.466	306	0.663
19	0.352	55	0.666	91	0.455	127	0.272	163	0.596	199	0.579	235	0.265	271	0.476	307	0.660
20	0.362	56	0.669	92	0.444	128	0.276	164	0.605	200	0.569	236	0.262	272	0.487	308	0.655
21	0.371	57	0.671	93	0.433	129	0.280	165	0.612	201	0.560	237	0.260	273	0.498	309	0.651
22	0.381	58	0.672	94	0.422	130	0.286	166	0.620	202	0.550	238	0.259	274	0.509	310	0.645
23	0.391	59	0.673	95	0.412	131	0.291	167	0.627	203	0.540	239	0.258	275	0.519	311	0.640
24	0.401	60	0.673	96	0.401	132	0.297	168	0.634	204	0.530	240	0.258	276	0.530	312	0.634
25	0.412	61	0.673	97	0.391	133	0.304	169	0.640	205	0.519	241	0.258	277	0.540	313	0.627
26	0.422	62	0.672	98	0.381	134	0.311	170	0.645	206	0.509	242	0.259	278	0.550	314	0.620
27	0.433	63	0.671	99	0.371	135	0.319	171	0.651	207	0.498	243	0.260	279	0.560	315	0.612
28	0.444	64	0.669	100	0.362	136	0.327	172	0.655	208	0.487	244	0.262	280	0.569	316	0.605
29	0.455	65	0.666	101	0.352	137	0.335	173	0.660	209	0.476	245	0.265	281	0.579	317	0.596
30	0.466	66	0.663	102	0.343	138	0.343	174	0.663	210	0.466	246	0.268	282	0.588	318	0.588
31	0.476	67	0.660	103	0.335	139	0.352	175	0.666	211	0.455	247	0.272	283	0.596	319	0.579
32	0.487	68	0.655	104	0.327	140	0.362	176	0.669	212	0.444	248	0.276	284	0.605	320	0.569
33	0.498	69	0.651	105	0.319	141	0.371	177	0.671	213	0.433	249	0.280	285	0.612	321	0.560
34	0.509	70	0.645	106	0.311	142	0.381	178	0.672	214	0.422	250	0.286	286	0.620	322	0.550
35	0.519	71	0.640	107	0.304	143	0.391	179	0.673	215	0.412	251	0.291	287	0.627	323	0.540

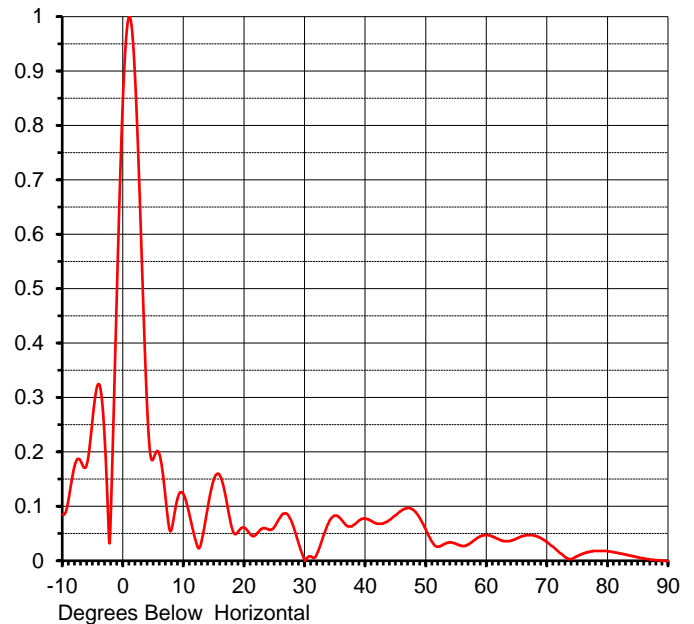
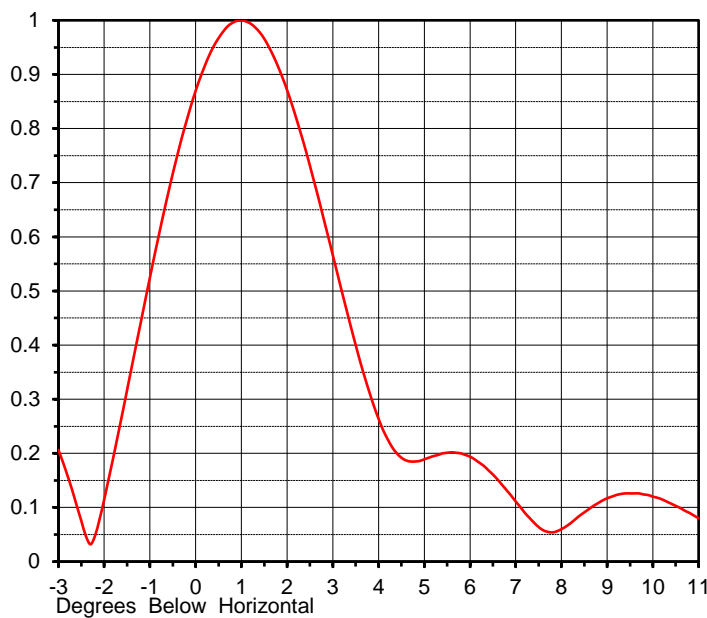
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ELEVATION PATTERN

Proposal No. **C-71115-1**
 Date **14-Sep-18**
 Call Letters **KFXL**
 Channel **15**
 Frequency **479 MHz**
 Antenna Type **TFU-16JSC/VP-R O3**

RMS Directivity at Main Lobe **16.2 (12.09 dB)**
 RMS Directivity at Horizontal **12.2 (10.86 dB)**
Calculated

Beam Tilt **1.00 deg**
 Pattern Number **16Y162100**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.085	10.0	0.120	30.0	0.000	50.0	0.055	70.0	0.034
-9.0	0.116	11.0	0.080	31.0	0.008	51.0	0.034	71.0	0.025
-8.0	0.177	12.0	0.034	32.0	0.014	52.0	0.026	72.0	0.015
-7.0	0.182	13.0	0.041	33.0	0.045	53.0	0.031	73.0	0.006
-6.0	0.179	14.0	0.103	34.0	0.073	54.0	0.034	74.0	0.003
-5.0	0.270	15.0	0.152	35.0	0.083	55.0	0.031	75.0	0.009
-4.0	0.324	16.0	0.155	36.0	0.075	56.0	0.027	76.0	0.014
-3.0	0.206	17.0	0.111	37.0	0.064	57.0	0.030	77.0	0.017
-2.0	0.115	18.0	0.057	38.0	0.066	58.0	0.038	78.0	0.018
-1.0	0.525	19.0	0.054	39.0	0.075	59.0	0.045	79.0	0.018
0.0	0.870	20.0	0.061	40.0	0.077	60.0	0.047	80.0	0.017
1.0	1.000	21.0	0.048	41.0	0.073	61.0	0.044	81.0	0.016
2.0	0.871	22.0	0.049	42.0	0.068	62.0	0.039	82.0	0.013
3.0	0.566	23.0	0.060	43.0	0.069	63.0	0.036	83.0	0.011
4.0	0.264	24.0	0.057	44.0	0.075	64.0	0.037	84.0	0.009
5.0	0.189	25.0	0.063	45.0	0.084	65.0	0.041	85.0	0.006
6.0	0.194	26.0	0.082	46.0	0.093	66.0	0.046	86.0	0.004
7.0	0.111	27.0	0.086	47.0	0.097	67.0	0.047	87.0	0.002
8.0	0.060	28.0	0.065	48.0	0.092	68.0	0.046	88.0	0.001
9.0	0.117	29.0	0.029	49.0	0.077	69.0	0.041	89.0	0.000
								90.0	0.000

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KFXL-TV - LINCOLN, NEBRASKA

Appendix B - Longley-Rice Interference Analysis

JANUARY 2020

tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: KFXL 15 AP LOW 582C 250K, Model: Longley-Rice
Start: 2020.01.27 11:30:31

Study created: 2020.01.27 11:30:31

Study build station data: LMS TV 2020-01-27

Proposal: KFXL-TV D15 DT APP LINCOLN, NE
File number: KFXL 15 AP LOW 582C 250K
Facility ID: 84453
Station data: User record
Record ID: 1187
Country: U.S.
Zone: II

Build options:
Protect pre-transition records not on baseline channel

Search options:
Non-U.S. records included
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KTIV	D14	DT	LIC	SIOUX CITY, IA	BLANK0000063868	209.2 km
No	KYOU-TV	D15	DT	LIC	OTTUMWA, IA	BLANK0000001581	394.5
Yes	KSNW	D15	DT	CP	WICHITA, KS	BLANK0000072850	337.3
No	KSMN	D15	DT	LIC	WORTHINGTON, MN	BLEDT20051219AGX	356.6
Yes	KMOS-TV	D15	DT	LIC	SEDALIA, MO	BLEDT20030108ABK	396.5
No	KTKA-TV	D16	DT	CP	TOPEKA, KS	BLANK0000034844	198.3

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D15
Latitude: 40 43 39.70 N (NAD83)
Longitude: 96 36 50.90 W
Height AMSL: 582.0 m
HAAT: 190.0 m
Peak ERP: 250 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.00

38.8 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	250 kW	199.2 m	78.0 km
45.0	250	187.1	77.0
90.0	250	176.0	76.2
135.0	250	164.6	75.3
180.0	250	173.4	76.0
225.0	250	198.5	77.9

Appendix B - Interference Analysis
KFXL-TV - Lincoln, Nebraska
Channel 15 - 250 kW - Page 2

270.0 250 202.5 78.2
 315.0 250 217.8 79.4

Distance to Canadian border: 893.8 km

Distance to Mexican border: 1292.2 km

Conditions at FCC monitoring station: Grand Island NE
 Bearing: 278.7 degrees Distance: 154.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
 Bearing: 267.8 degrees Distance: 731.0 km

No land mobile station failures found

Study cell size: 2.00 km
 Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
 Maximum new IX to LPTV: 2.00%

 Interference to BLANK0000072850 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KSNW	D15	DT	CP	WICHITA, KS	BLANK0000072850	
Undesireds:	KFXL-TV	D15	DT	BL	LINCOLN, NE	DTVBL84453	349.7 km
	KFXL-TV	D15	DT	APP	LINCOLN, NE	KFXL 15 AP LOW 582C 25	337.3
	KHOG-TV	D15	DT	LIC	FAYETTEVILLE, AR	BLCDT20020904AAX	362.2
	KTBO-TV	D15	DT	LIC	OKLAHOMA CITY, OK	BLCDT20111028AAX	244.3
	KOOD	D16	DT	LIC	HAYS, KS	BLEDT20030423ABE	153.9

	Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
	30676.6 791,403	30357.6 791,127	29477.3 788,632	29433.1 788,590	0.15 0.01

Undesired	Total IX	Unique IX, before	Unique IX, after
KFXL-TV D15 DT BL	0.0 0	0.0 0	
KFXL-TV D15 DT APP	44.2 42		44.2 42
KHOG-TV D15 DT LIC	19.9 7	0.0 0	0.0 0
KTBO-TV D15 DT LIC	876.3 2,489	856.4 2,482	856.4 2,482
KOOD D16 DT LIC	4.0 6	4.0 6	4.0 6

 Interference to BLEDT20030108ABK LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KMOS-TV	D15	DT	LIC	SEDALIA, MO	BLEDT20030108ABK	
Undesireds:	KFXL-TV	D15	DT	BL	LINCOLN, NE	DTVBL84453	408.9 km
	KFXL-TV	D15	DT	APP	LINCOLN, NE	KFXL 15 AP LOW 582C 25	396.5
	KNLC	D14	DT	APP	ST. LOUIS, MO	BLANK0000035663	203.9
	KHOG-TV	D15	DT	LIC	FAYETTEVILLE, AR	BLCDT20020904AAX	309.4
	KYOU-TV	D15	DT	LIC	OTTUMWA, IA	BLANK0000001581	295.9
	W15BU-D	D15	DC	CP	JOHNSTON CITY, IL	BLANK0000035857	354.6
	WICS	D15	DT	CP	SPRINGFIELD, IL	BLANK0000034386	321.2
	KOZK	D16	DT	LIC	SPRINGFIELD, MO	BLANK0000096081	161.6

	Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
	41407.6 804,745	41184.8 803,129	40866.3 799,858	40862.3 799,714	0.01 0.02

Undesired	Total IX	Unique IX, before	Unique IX, after
KFXL-TV D15 DT BL	0.0 0	0.0 0	
KFXL-TV D15 DT APP	4.0 144		4.0 144
KHOG-TV D15 DT LIC	67.4 272	43.6 153	43.6 153
KYOU-TV D15 DT LIC	23.9 717	15.9 667	15.9 667

Appendix B - Interference Analysis
KFXL-TV - Lincoln, Nebraska
Channel 15 - 250 kW - Page 3

WICS D15 DT CP	108.1	382	100.1	332	100.1	332
KOZK D16 DT LIC	150.9	2,069	127.1	1,950	127.1	1,950

Interference to proposal scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KFXL-TV	D15	DT	APP	LINCOLN, NE	KFXL 15 AP LOW 582C 25	
Undesireds:	KSNW	D15	DT	CP	WICHITA, KS	BLANK0000072850	337.3 km
	Service area			Terrain-limited		IX-free	Percent IX
	18735.8	861,804		18655.6	853,951	18651.6	853,941
							0.02 0.00
Undesired				Total IX		Unique IX	Prcnt Unique IX
KSNW D15 DT CP			4.0	10	4.0	10	0.02 0.00



RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE

The licensee of KFXL-TV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the KFXL-TV antenna and will reduce power or cease operation, when necessary, to ensure protection to personnel.

As shown in Appendix A the proposed KFXL-TV channel 15 modified facility will operate with a maximum ERP of 250 kW from an elliptically polarized non-directional transmitting antenna with a centerline height of 156 meters above ground level (AGL). Considering the elevation pattern submitted elsewhere in this application, the vertical plane relative field factor is less than 0.1 at all depression angles greater than 17 degrees. The KFXL-TV facility is predicted to produce a worst-case power density at two meters above ground level, at 154.0 meters from the tower base, of $2.484 \mu\text{W}/\text{cm}^2$, which is 0.78% of the FCC guideline value of $319.33 \mu\text{W}/\text{cm}^2$ for an "uncontrolled" environment, and 0.034% of the FCC's guideline value for "controlled" environments. Therefore, pursuant to Section 1.1307(b)(3) of the FCC Rules, because the proposed facility would not exceed 5% of the uncontrolled and controlled exposure limits, the proposal's power density contribution is considered insignificant. (See Appendix A)

Further, the applicant will continue to cooperate and coordinate with other any other site users and reduce power or cease operation during times of service or maintenance of the transmission systems as necessary to avoid potentially harmful exposure to personnel. In light of the above, the proposed facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules.

KFXL-TV
Channel 15 - Lincoln, NE
ERP = 250000.00 WATTS

APPENDIX A

Maximum ERP 250 kW

Polarization ----- 2 Circular
 Antenna Height Above Ground - 156 meters 511.8 feet
 FCC Uncontrolled RFR Limit --- 319.33 $\mu\text{W}/\text{cm}^2$

Maximum Computed Power Density 2.484 $\mu\text{W}/\text{cm}^2$
 0.78% of limit

Angle Below Horizontal (degrees)	<Point X> Horiz Distance from tower to 2 m AGL (meters)	Slant Distance from antenna to Point X (meters)	Vertical Pattern (REL. FIELD)	KFXL-TV ERP (kW)	KFXL-TV Calculated Power Density $\mu\text{W}/\text{cm}^2$	Percent Limit	Limit Exceeded?
0			0.870	189.2250			
5	1760.2	1767.0	0.189	8.9303	0.191	0.06%	No
10	873.4	886.9	0.120	3.6000	0.306	0.10%	No
15	574.7	595.0	0.152	5.7760	1.090	0.34%	No
20	423.1	450.3	0.061	0.9303	0.307	0.10%	No
25	330.3	364.4	0.063	0.9923	0.499	0.16%	No
30	266.7	308.0	0.000	0.0000	0.000	0.00%	No
35	219.9	268.5	0.083	1.7223	1.596	0.50%	No
40	183.5	239.6	0.077	1.4823	1.725	0.54%	No
45	154.0	217.8	0.084	1.7640	2.484	0.78%	No
50	129.2	201.0	0.055	0.7563	1.250	0.39%	No
55	107.8	188.0	0.031	0.2403	0.454	0.14%	No
60	88.9	177.8	0.047	0.5523	1.167	0.37%	No
65	71.8	169.9	0.041	0.4203	0.972	0.30%	No
70	56.1	163.9	0.034	0.2890	0.719	0.23%	No
75	41.3	159.4	0.009	0.0203	0.053	0.02%	No
80	27.2	156.4	0.017	0.0723	0.197	0.06%	No
85	13.5	154.6	0.006	0.0090	0.025	0.01%	No
90	0.0	154.0	0.000	0.0000	0.000	0.00%	No

