



**STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION FOR
A MINOR MODIFICATION OF A
POST REPACK CONSTRUCTION PERMIT
FILE # 0000034249
KOMO-TV - SEATTLE, WASHINGTON
DTV - CH. 30 - 915 kW - 259 m HAAT**

Prepared for: SINCLAIR SEATTLE 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 SINCLAIR SEATTLE LICENSEE, LLC, licensee of KOMO-TV, channel 38, facility ID number 21656, licensed to Seattle, Washington, 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 post-reassignment construction permit, File # 0000034249, that authorizes KOMO-TV to use channel 30 for its post-reassignment broadcasting. The instant application proposes to substitute a different model of non-directional antenna, a Dielectric model TFU-25TT/VP-R O6, at the same height above ground as its currently authorized non-directional antenna, an ERI model ATW28H3-ETO-38H. Additionally, the ERP is to be reduced from 1000 kW to 915 kW. No other changes are proposed.

NON-DIRECTIONAL ANTENNA

The applicant proposes to substitute and install a new Dielectric model TFU-25ETT/VP-R O6 elliptically polarized non-directional transmitting antenna with its center of radiation located at the same height above ground of 163 meters, and the same height above average terrain of 259 meters, as currently authorized. The antenna manufacturer's horizontal azimuth pattern for the vertical component, and the vertical plane elevation radiation pattern, illustrating the antenna's radiation characteristics above and below the horizontal plane are all shown and tabulated in the antenna exhibit.

PREDICTED COVERAGE CONTOURS

The predicted coverage contours were calculated in accordance with the method described in Section 73.625(b) of the Rules, utilizing the appropriate F(50,90) propagation curves (47 CFR Section 73.699, Figure 9), proposed Effective Radiated Power, and antenna height above average terrain as determined for each profile radial. The average terrain on the eight cardinal radials from 3 kilometers to 16 kilometers from the site, was determined using the NED Three Second US Terrain Database as permitted in the FCC Rules. The antenna site elevation and coordinates were determined from FCC antenna registration data. Exhibit 1 shows the predicted Noise Limited (40.32 dBu) contour, and the principal community (48 dBu) contour, which completely encompasses the principal community of license, Seattle, Washington.

BLANKETING AND INTERMODULATION INTERFERENCE

Other broadcast facilities are co-located with KOMO-TV at its authorized site. The applicant does recognize its responsibility to remedy complaints of interference that might result from this proposal in accordance with applicable Rules.

RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE

The licensee of KOMO-TV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the KOMO-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.

The proposed KOMO-TV channel 30 modification of CP facility will operate with a maximum ERP of 915 kW from an elliptically polarized non-directional transmitting antenna with a centerline height of 163 meters above ground level (AGL). Considering the vertical plane relative field of the substitute antenna, as shown herein, the KOMO-TV facility is predicted to produce a worst-case power density at two meters above ground level of $2.239 \mu\text{W}/\text{cm}^2$, which is 0.610% of the FCC guideline value of $367.33 \mu\text{W}/\text{cm}^2$ for an "uncontrolled" environment, and 0.122% of the FCC's guideline value for "controlled" environments. See Appendix A.

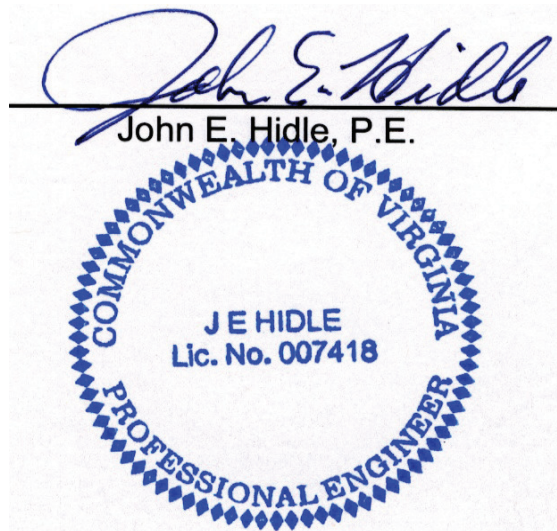
Therefore, pursuant to Section 1.1307(b)(3) of the FCC Rules, because the proposed facility would not exceed 5% of the uncontrolled and controlled exposure limits, the proposal's power density contribution is considered insignificant. Further, the applicant will continue to coordinate with all other 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.

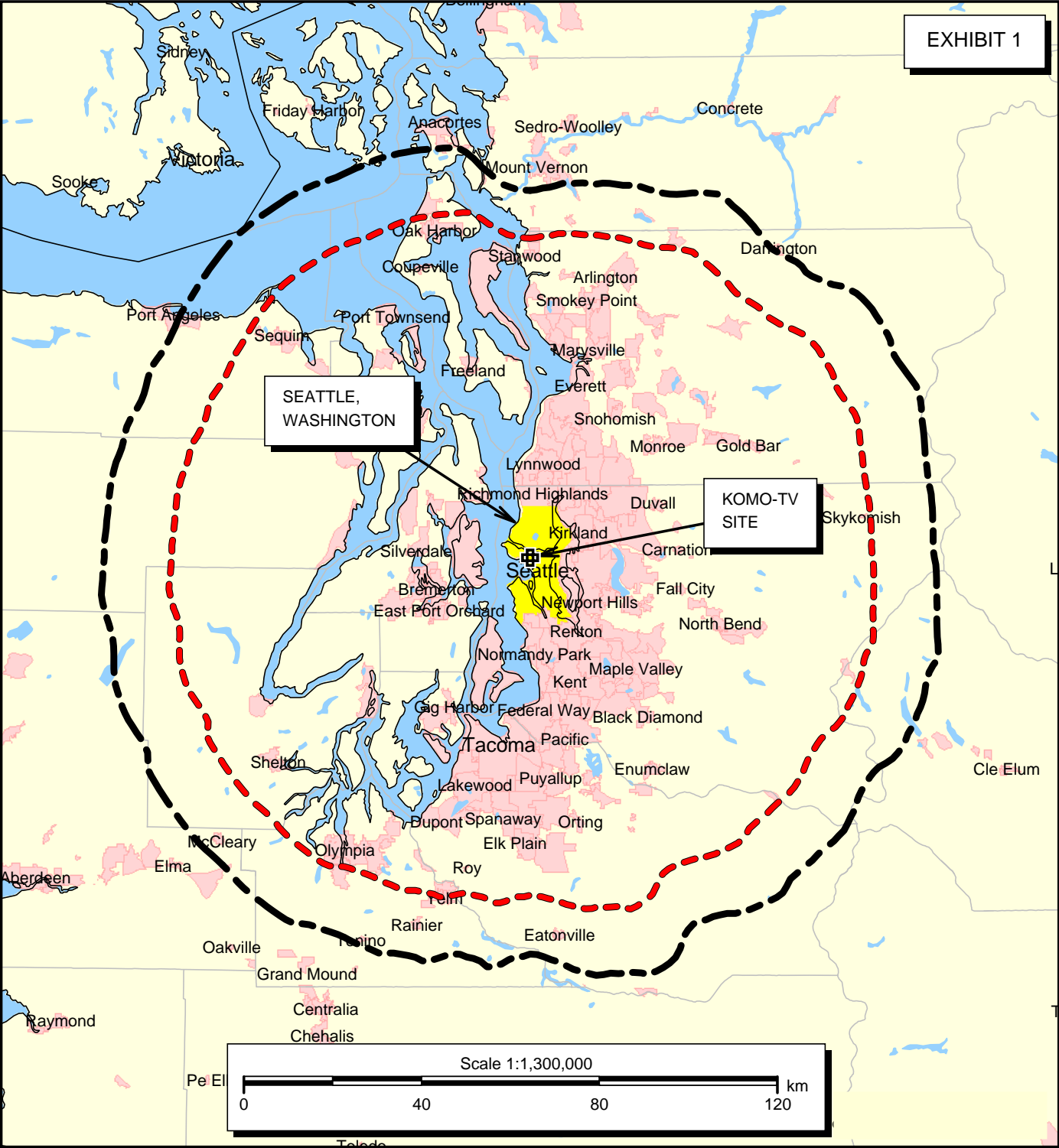
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SUMMARY

It is submitted that the instant application for a minor modification of KOMO-TV's post reassignment channel 30 construction permit, file # 0000034249, to substitute a different make and model non-directional antenna and to reduce its authorized ERP from 1000 kW to 915 kW, 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: October 14, 2019





PREDICTED COVERAGE CONTOURS

KOMO-TV - SEATTLE, WASHINGTON
DTV Channel 30 - 915 kW ERP - 259 M HAAT
OCTOBER, 2019

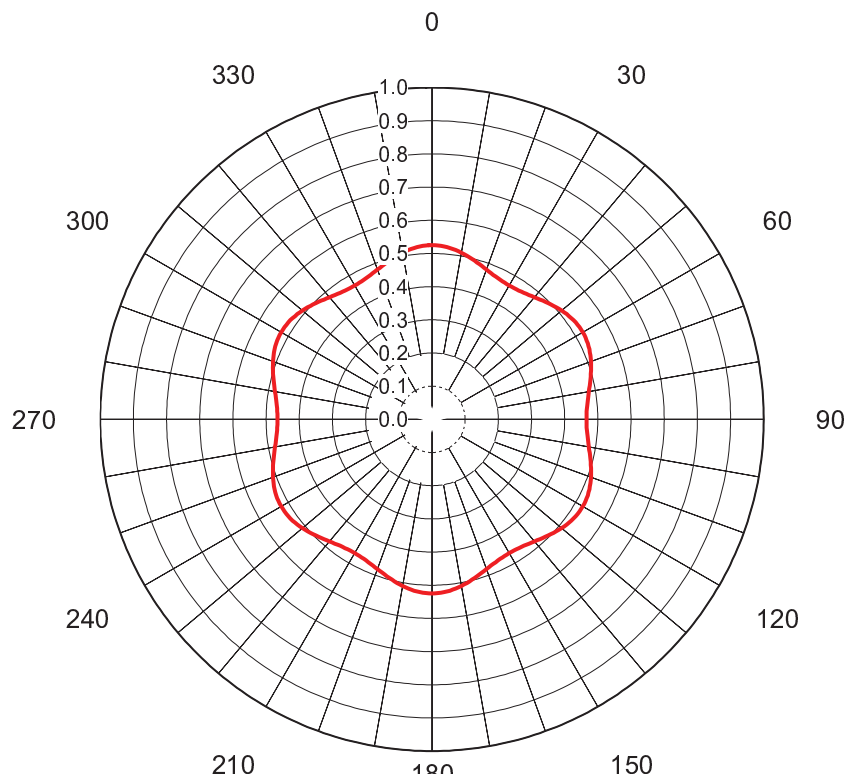
Predicted Noise Limited 40.32 dBu
F(50,90) Coverage Contour



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

AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-70817-2**
 Date **7-Jun-18**
 Call Letters **KOMO**
 Channel **30**
 Frequency **569 MHz**
 Antenna Type **TFU-25ETT/VP-R O6**
 Gain **1.12 (0.5dB)**
 Calculated
 Circularity **+/- 1.0 dB**



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.525	36	0.471	72	0.504	108	0.504	144	0.471	180	0.525	216	0.471	252	0.504	288	0.504
1	0.525	37	0.473	73	0.501	109	0.507	145	0.470	181	0.525	217	0.473	253	0.501	289	0.507
2	0.524	38	0.475	74	0.498	110	0.510	146	0.468	182	0.524	218	0.475	254	0.498	290	0.510
3	0.523	39	0.478	75	0.495	111	0.513	147	0.467	183	0.523	219	0.478	255	0.495	291	0.513
4	0.522	40	0.480	76	0.492	112	0.515	148	0.466	184	0.522	220	0.480	256	0.492	292	0.515
5	0.521	41	0.483	77	0.489	113	0.517	149	0.466	185	0.521	221	0.483	257	0.489	293	0.517
6	0.519	42	0.486	78	0.486	114	0.519	150	0.466	186	0.519	222	0.486	258	0.486	294	0.519
7	0.517	43	0.489	79	0.483	115	0.521	151	0.466	187	0.517	223	0.489	259	0.483	295	0.521
8	0.515	44	0.492	80	0.480	116	0.522	152	0.466	188	0.515	224	0.492	260	0.480	296	0.522
9	0.513	45	0.495	81	0.478	117	0.523	153	0.467	189	0.513	225	0.495	261	0.478	297	0.523
10	0.510	46	0.498	82	0.475	118	0.524	154	0.468	190	0.510	226	0.498	262	0.475	298	0.524
11	0.507	47	0.501	83	0.473	119	0.525	155	0.470	191	0.507	227	0.501	263	0.473	299	0.525
12	0.504	48	0.504	84	0.471	120	0.525	156	0.471	192	0.504	228	0.504	264	0.471	300	0.525
13	0.501	49	0.507	85	0.470	121	0.525	157	0.473	193	0.501	229	0.507	265	0.470	301	0.525
14	0.498	50	0.510	86	0.468	122	0.524	158	0.475	194	0.498	230	0.510	266	0.468	302	0.524
15	0.495	51	0.513	87	0.467	123	0.523	159	0.478	195	0.495	231	0.513	267	0.467	303	0.523
16	0.492	52	0.515	88	0.466	124	0.522	160	0.480	196	0.492	232	0.515	268	0.466	304	0.522
17	0.489	53	0.517	89	0.466	125	0.521	161	0.483	197	0.489	233	0.517	269	0.466	305	0.521
18	0.486	54	0.519	90	0.466	126	0.519	162	0.486	198	0.486	234	0.519	270	0.466	306	0.519
19	0.483	55	0.521	91	0.466	127	0.517	163	0.489	199	0.483	235	0.521	271	0.466	307	0.517
20	0.480	56	0.522	92	0.466	128	0.515	164	0.492	200	0.480	236	0.522	272	0.466	308	0.515
21	0.478	57	0.523	93	0.467	129	0.513	165	0.495	201	0.478	237	0.523	273	0.467	309	0.513
22	0.475	58	0.524	94	0.468	130	0.510	166	0.498	202	0.475	238	0.524	274	0.468	310	0.510
23	0.473	59	0.525	95	0.470	131	0.507	167	0.501	203	0.473	239	0.525	275	0.470	311	0.507
24	0.471	60	0.525	96	0.471	132	0.504	168	0.504	204	0.471	240	0.525	276	0.471	312	0.504
25	0.470	61	0.525	97	0.473	133	0.501	169	0.507	205	0.470	241	0.525	277	0.473	313	0.501
26	0.468	62	0.524	98	0.475	134	0.498	170	0.510	206	0.468	242	0.524	278	0.475	314	0.498
27	0.467	63	0.523	99	0.478	135	0.495	171	0.513	207	0.467	243	0.523	279	0.478	315	0.495
28	0.466	64	0.522	100	0.480	136	0.492	172	0.515	208	0.466	244	0.522	280	0.480	316	0.492
29	0.466	65	0.521	101	0.483	137	0.489	173	0.517	209	0.466	245	0.521	281	0.483	317	0.489
30	0.466	66	0.519	102	0.486	138	0.486	174	0.519	210	0.466	246	0.519	282	0.486	318	0.486
31	0.466	67	0.517	103	0.489	139	0.483	175	0.521	211	0.466	247	0.517	283	0.489	319	0.483
32	0.466	68	0.515	104	0.492	140	0.480	176	0.522	212	0.466	248	0.515	284	0.492	320	0.480
33	0.467	69	0.513	105	0.495	141	0.478	177	0.523	213	0.467	249	0.513	285	0.495	321	0.478
34	0.468	70	0.510	106	0.498	142	0.475	178	0.524	214	0.468	250	0.510	286	0.498	322	0.475
35	0.470	71	0.507	107	0.501	143	0.473	179	0.525	215	0.470	251	0.507	287	0.501	323	0.473

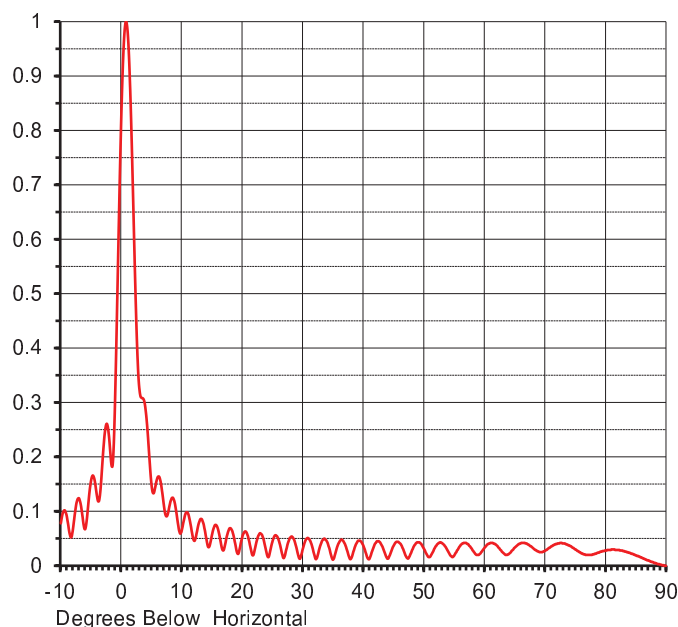
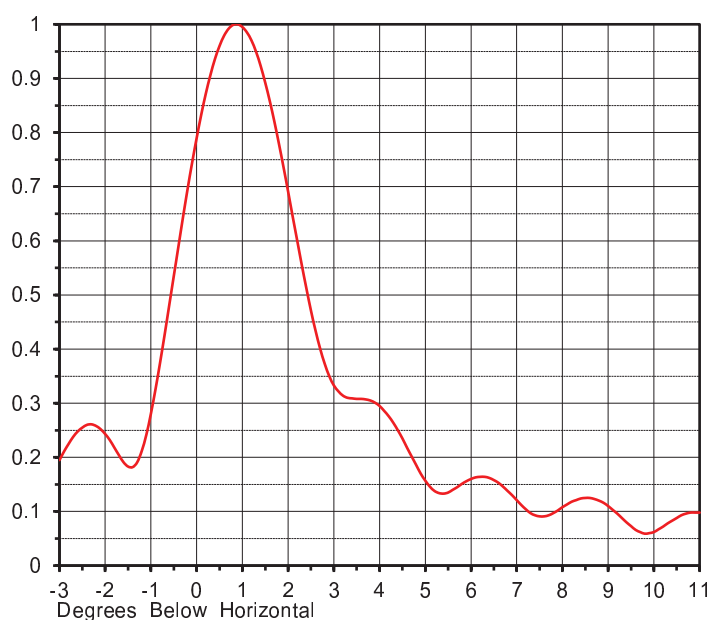
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ELEVATION PATTERN

Proposal No. **C-70817-2**
 Date **7-Jun-18**
 Call Letters **KOMO**
 Channel **30**
 Frequency **569 MHz**
 Antenna Type **TFU-25ETT/VP-R O6**

RMS Directivity at Main Lobe **23.3 (13.67 dB)**
 RMS Directivity at Horizontal **16.2 (12.10 dB)**
Calculated

Beam Tilt **0.75 deg**
 Pattern Number **25E233075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.078	10.0	0.067	30.0	0.033	50.0	0.030	70.0	0.028
-9.0	0.090	11.0	0.096	31.0	0.049	51.0	0.017	71.0	0.036
-8.0	0.067	12.0	0.046	32.0	0.014	52.0	0.037	72.0	0.041
-7.0	0.124	13.0	0.085	33.0	0.042	53.0	0.041	73.0	0.041
-6.0	0.067	14.0	0.051	34.0	0.043	54.0	0.025	74.0	0.037
-5.0	0.157	15.0	0.059	35.0	0.012	55.0	0.020	75.0	0.030
-4.0	0.126	16.0	0.065	36.0	0.044	56.0	0.038	76.0	0.023
-3.0	0.211	17.0	0.033	37.0	0.037	57.0	0.041	77.0	0.020
-2.0	0.232	18.0	0.069	38.0	0.015	58.0	0.028	78.0	0.021
-1.0	0.326	19.0	0.028	39.0	0.045	59.0	0.020	79.0	0.025
0.0	0.833	20.0	0.055	40.0	0.035	60.0	0.034	80.0	0.028
1.0	0.985	21.0	0.049	41.0	0.014	61.0	0.042	81.0	0.030
2.0	0.645	22.0	0.029	42.0	0.042	62.0	0.037	82.0	0.029
3.0	0.322	23.0	0.059	43.0	0.037	63.0	0.024	83.0	0.027
4.0	0.286	24.0	0.022	44.0	0.013	64.0	0.022	84.0	0.023
5.0	0.146	25.0	0.047	45.0	0.038	65.0	0.034	85.0	0.019
6.0	0.163	26.0	0.046	46.0	0.041	66.0	0.042	86.0	0.014
7.0	0.112	27.0	0.019	47.0	0.017	67.0	0.040	87.0	0.010
8.0	0.113	28.0	0.053	48.0	0.029	68.0	0.032	88.0	0.005
9.0	0.103	29.0	0.028	49.0	0.043	69.0	0.025	89.0	0.002
								90.0	0.000

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RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE

The licensee of KOMO-TV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the KOMO-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.

The proposed KOMO-TV channel 30 modification of CP facility will operate with a maximum ERP of 915 kW from an elliptically polarized non-directional transmitting antenna with a centerline height of 163 meters above ground level (AGL). Considering the vertical plane relative field of the substitute antenna, as shown herein, the KOMO-TV facility is predicted to produce a worst-case power density at two meters above ground level of $2.239 \mu\text{W}/\text{cm}^2$, which is 0.610% of the FCC guideline value of $367.33 \mu\text{W}/\text{cm}^2$ for an “uncontrolled” environment, and 0.122% of the FCC’s guideline value for “controlled” environments. See Appendix A.

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. Further, the applicant will continue to coordinate with all 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.

KOMO-TV
Channel 30 - Seattle, WA
ERP = 915000.00 WATTS

APPENDIX A

Maximum ERP 915 kW

Polarization ----- 2 Circular
 Antenna Height Above Ground - 163 meters 534.8 feet
 FCC Uncontrolled RFR Limit ---- 367.3 $\mu\text{W}/\text{cm}^2$

Maximum Computed Power Density 2.239 $\mu\text{W}/\text{cm}^2$
 0.61% 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)	KOMO-TV ERP (kW)	KOMO-TV Calculated Power Density $\mu\text{W}/\text{cm}^2$	Percent Limit	Limit Exceeded?
0			0.990	896.7915			
5	1840.2	1847.3	0.146	19.5041	0.382	0.10%	No
10	913.1	927.2	0.067	4.1074	0.319	0.09%	No
15	600.9	622.1	0.059	3.1851	0.550	0.15%	No
20	442.3	470.7	0.055	2.7679	0.834	0.23%	No
25	345.3	381.0	0.047	2.0212	0.930	0.25%	No
30	278.9	322.0	0.033	0.9964	0.642	0.17%	No
35	229.9	280.7	0.012	0.1318	0.112	0.03%	No
40	191.9	250.5	0.035	1.1209	1.193	0.32%	No
45	161.0	227.7	0.038	1.3213	1.702	0.46%	No
50	135.1	210.2	0.030	0.8235	1.245	0.34%	No
55	112.7	196.5	0.020	0.3660	0.633	0.17%	No
60	93.0	185.9	0.034	1.0577	2.044	0.56%	No
65	75.1	177.6	0.034	1.0577	2.239	0.61%	No
70	58.6	171.3	0.028	0.7174	1.632	0.44%	No
75	43.1	166.7	0.030	0.8235	1.980	0.54%	No
80	28.4	163.5	0.028	0.7174	1.793	0.49%	No
85	14.1	161.6	0.019	0.3303	0.845	0.23%	No
90	0.0	161.0	0.000	0.0000	0.000	0.00%	No

