



**STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF A REQUEST FOR A
SPECIAL TEMPORARY AUTHORIZATION (STA) TO TRANSITION TO
WSET-TV'S POST-TRANSITION OPERATION USING AN INTERIM ANTENNA
PENDING INSTALLATION OF THE MAIN ANTENNA
WSET-TV - LYNCHBURG, VIRGINIA
DTV - CH. 7 - 41.23 kW - 567 m HAAT**

Prepared for: WSET 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 WSET LICENSEE, LLC, licensee of WSET-TV, facility ID number 73988, licensed to Lynchburg, Virginia, to prepare this statement and associated exhibits in support of a request for an STA which will allowed WSET-TV to transition, authorized by 0000106070, to channel 7 using an interim temporary antenna. WSET-TV has installed its permanent main transmitter but is unable to secure the installation of its authorized main antenna prior to the phase 10 completion date, July 3, 2020. Therefore, WSET-TV seeks authorization to make its transition on time using a temporary interim antenna. The instant request proposes a Dielectric Model TLS-V4B/VP-R int antenna, an ERP of 41.23 kW at an HAAT of 567 meters. The STA NLC is within the authorized NLC. Once the authorized main antenna is installed and operational WSET-TV will license and commence permanent operation on its post transition facility.

BLANKETING AND INTERMODULATION INTERFERENCE

Other broadcast and non-broadcast facilities are either co-located with, or located within 10 km of the proposed WSET-TV 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 WSET-TV is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WSET-TV antenna and will reduce power or cease operation, when necessary, to ensure protection to personnel.

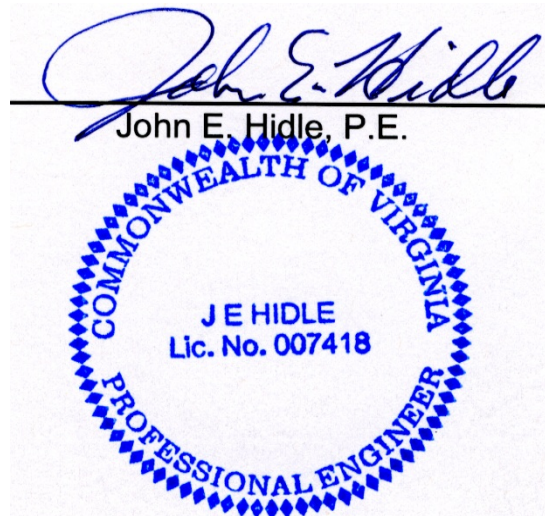
As shown in Appendix A the WSET-TV channel 7 post-transition interim STA facility proposed herein will operate with a maximum ERP of 41.23 kW from an elliptically polarized directional transmitting antenna with a centerline height of 305 meters above ground level (AGL). Considering the elevation pattern submitted elsewhere in this application, the vertical plane relative field factor is less than 0.200 at all depression angles greater than 28 degrees. The proposed WSET-TV STA facility is predicted to produce a worst-case power density at two meters above ground level, at 649.8 meters from the tower base, of $0.441 \mu\text{W}/\text{cm}^2$, which is 0.22% of the FCC guideline value of $200 \mu\text{W}/\text{cm}^2$ for an "uncontrolled" environment, and 0.044% 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.

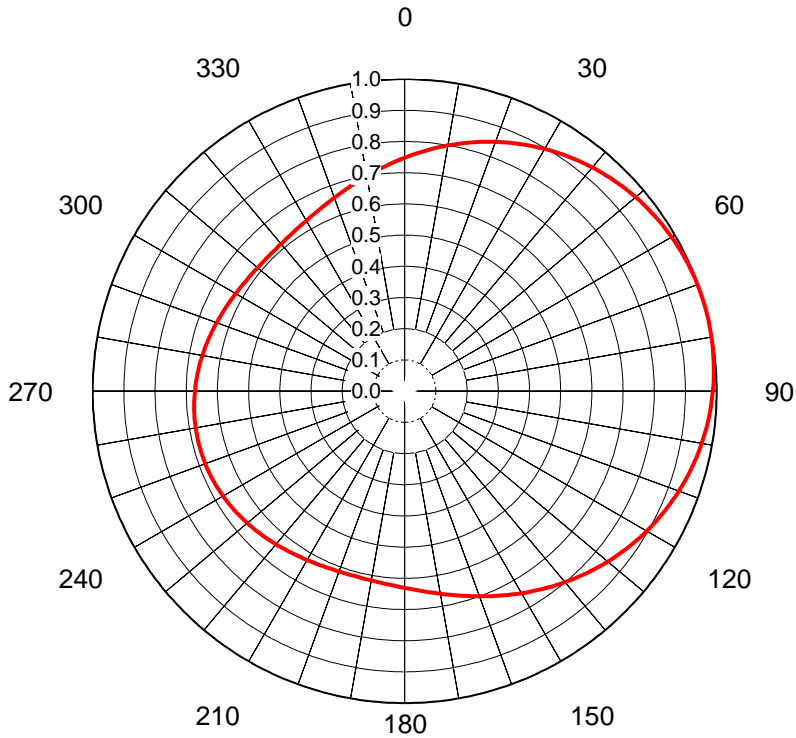
STATEMENT OF JOHN E. HIDLE, P.E.
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SUMMARY

It is submitted that the instant request for STA to allow WSET-TV to transition on time to its new channel 7 using a temporary antenna facility until the authorized permanent main antenna can be installed, 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: June 4, 2020





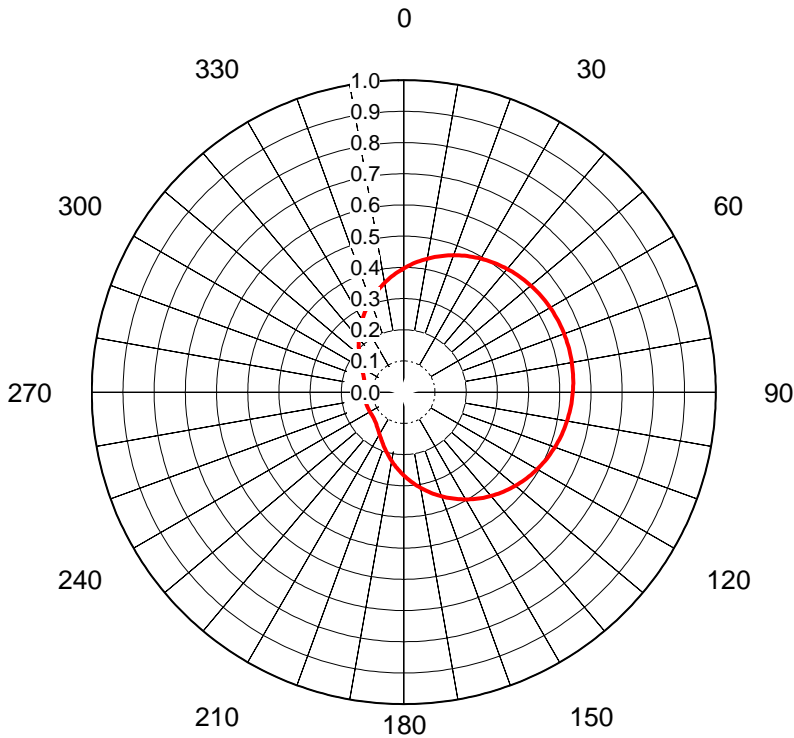
AZIMUTH PATTERN Horizontal Polarization

Proposal No. **WSET-Interim**
 Date **31-Mar-20**
 Call Letters **WSET**
 Channel **7**
 Frequency **177 MHz**
 Antenna Type **TLS-V4B/VP-R**
 Gain **1.68 (2.24dB)**
 Calculated

Pattern Number **TLS-B-7 Hpol**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.748	36	0.921	72	0.999	108	0.943	144	0.779	180	0.631	216	0.634	252	0.681	288	0.645	324	0.620
1	0.753	37	0.925	73	1.000	109	0.939	145	0.774	181	0.629	217	0.636	253	0.681	289	0.643	325	0.622
2	0.758	38	0.929	74	1.000	110	0.936	146	0.769	182	0.627	218	0.638	254	0.681	290	0.641	326	0.623
3	0.763	39	0.932	75	1.000	111	0.932	147	0.763	183	0.625	219	0.640	255	0.681	291	0.640	327	0.625
4	0.769	40	0.936	76	1.000	112	0.929	148	0.758	184	0.623	220	0.641	256	0.681	292	0.638	328	0.627
5	0.774	41	0.939	77	1.000	113	0.925	149	0.753	185	0.622	221	0.643	257	0.681	293	0.636	329	0.629
6	0.779	42	0.943	78	0.999	114	0.921	150	0.748	186	0.620	222	0.645	258	0.681	294	0.634	330	0.631
7	0.784	43	0.946	79	0.999	115	0.917	151	0.743	187	0.619	223	0.647	259	0.680	295	0.633	331	0.633
8	0.789	44	0.949	80	0.999	116	0.913	152	0.738	188	0.618	224	0.648	260	0.680	296	0.631	332	0.635
9	0.794	45	0.952	81	0.998	117	0.909	153	0.733	189	0.617	225	0.650	261	0.680	297	0.630	333	0.638
10	0.800	46	0.955	82	0.997	118	0.905	154	0.728	190	0.616	226	0.652	262	0.679	298	0.628	334	0.641
11	0.805	47	0.958	83	0.997	119	0.901	155	0.723	191	0.615	227	0.653	263	0.679	299	0.627	335	0.643
12	0.810	48	0.961	84	0.996	120	0.896	156	0.719	192	0.615	228	0.655	264	0.678	300	0.625	336	0.646
13	0.815	49	0.964	85	0.995	121	0.892	157	0.714	193	0.615	229	0.657	265	0.677	301	0.624	337	0.649
14	0.820	50	0.967	86	0.993	122	0.888	158	0.709	194	0.614	230	0.658	266	0.676	302	0.623	338	0.653
15	0.825	51	0.969	87	0.992	123	0.883	159	0.704	195	0.614	231	0.660	267	0.675	303	0.621	339	0.656
16	0.830	52	0.972	88	0.991	124	0.879	160	0.700	196	0.614	232	0.662	268	0.674	304	0.620	340	0.660
17	0.835	53	0.974	89	0.989	125	0.874	161	0.695	197	0.614	233	0.663	269	0.673	305	0.619	341	0.663
18	0.840	54	0.976	90	0.988	126	0.869	162	0.691	198	0.615	234	0.665	270	0.672	306	0.618	342	0.667
19	0.845	55	0.979	91	0.986	127	0.865	163	0.687	199	0.615	235	0.666	271	0.671	307	0.617	343	0.671
20	0.850	56	0.981	92	0.984	128	0.860	164	0.683	200	0.615	236	0.667	272	0.670	308	0.617	344	0.674
21	0.855	57	0.983	93	0.983	129	0.855	165	0.678	201	0.616	237	0.669	273	0.669	309	0.616	345	0.678
22	0.860	58	0.984	94	0.981	130	0.850	166	0.674	202	0.617	238	0.670	274	0.667	310	0.615	346	0.683
23	0.865	59	0.986	95	0.979	131	0.845	167	0.671	203	0.617	239	0.671	275	0.666	311	0.615	347	0.687
24	0.869	60	0.988	96	0.976	132	0.840	168	0.667	204	0.618	240	0.672	276	0.665	312	0.615	348	0.691
25	0.874	61	0.989	97	0.974	133	0.835	169	0.663	205	0.619	241	0.673	277	0.663	313	0.614	349	0.695
26	0.879	62	0.991	98	0.972	134	0.830	170	0.660	206	0.620	242	0.674	278	0.662	314	0.614	350	0.700
27	0.883	63	0.992	99	0.969	135	0.825	171	0.656	207	0.621	243	0.675	279	0.660	315	0.614	351	0.704
28	0.888	64	0.993	100	0.967	136	0.820	172	0.653	208	0.623	244	0.676	280	0.658	316	0.614	352	0.709
29	0.892	65	0.995	101	0.964	137	0.815	173	0.649	209	0.624	245	0.677	281	0.657	317	0.615	353	0.714
30	0.896	66	0.996	102	0.961	138	0.810	174	0.646	210	0.625	246	0.678	282	0.655	318	0.615	354	0.719
31	0.901	67	0.997	103	0.958	139	0.805	175	0.643	211	0.627	247	0.679	283	0.653	319	0.615	355	0.723
32	0.905	68	0.997	104	0.955	140	0.800	176	0.641	212	0.628	248	0.679	284	0.652	320	0.616	356	0.728
33	0.909	69	0.998	105	0.952	141	0.794	177	0.638	213	0.630	249	0.680	285	0.650	321	0.617	357	0.733
34	0.913	70	0.999	106	0.949	142	0.789	178	0.635	214	0.631	250	0.680	286	0.648	322	0.618	358	0.738
35	0.917	71	0.999	107	0.946	143	0.784	179	0.633	215	0.633	251	0.680	287	0.647	323	0.619	359	0.743

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AZIMUTH PATTERN Vertical Polarization

Proposal No. **WSET-Interim**
 Date **31-Mar-20**
 Call Letters **WSET**
 Channel **7**
 Frequency **177 MHz**
 Antenna Type **TLS-V4B/VP-R**
 Gain **2.23 (3.49dB)**
 Calculated

Pattern Number **TLS-B-7 Vpol**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.397	36	0.508	72	0.547	108	0.519	144	0.420	180	0.267	216	0.143	252	0.126	288	0.134
1	0.401	37	0.510	73	0.548	109	0.517	145	0.416	181	0.262	217	0.141	253	0.126	289	0.135
2	0.405	38	0.512	74	0.548	110	0.516	146	0.413	182	0.258	218	0.139	254	0.126	290	0.136
3	0.409	39	0.514	75	0.548	111	0.514	147	0.409	183	0.253	219	0.138	255	0.126	291	0.138
4	0.413	40	0.516	76	0.548	112	0.512	148	0.405	184	0.249	220	0.136	256	0.126	292	0.139
5	0.416	41	0.517	77	0.548	113	0.510	149	0.401	185	0.245	221	0.135	257	0.126	293	0.141
6	0.420	42	0.519	78	0.547	114	0.508	150	0.397	186	0.240	222	0.134	258	0.126	294	0.143
7	0.424	43	0.521	79	0.547	115	0.505	151	0.393	187	0.236	223	0.133	259	0.126	295	0.144
8	0.427	44	0.523	80	0.547	116	0.503	152	0.389	188	0.232	224	0.132	260	0.126	296	0.146
9	0.431	45	0.524	81	0.547	117	0.501	153	0.385	189	0.228	225	0.131	261	0.126	297	0.149
10	0.434	46	0.526	82	0.546	118	0.499	154	0.381	190	0.224	226	0.130	262	0.126	298	0.151
11	0.438	47	0.527	83	0.546	119	0.496	155	0.377	191	0.220	227	0.129	263	0.125	299	0.153
12	0.441	48	0.529	84	0.546	120	0.494	156	0.373	192	0.215	228	0.128	264	0.125	300	0.155
13	0.445	49	0.530	85	0.545	121	0.492	157	0.368	193	0.211	229	0.128	265	0.125	301	0.158
14	0.448	50	0.531	86	0.545	122	0.489	158	0.364	194	0.208	230	0.127	266	0.125	302	0.161
15	0.451	51	0.533	87	0.544	123	0.487	159	0.360	195	0.204	231	0.127	267	0.125	303	0.163
16	0.455	52	0.534	88	0.543	124	0.484	160	0.356	196	0.200	232	0.126	268	0.125	304	0.166
17	0.458	53	0.535	89	0.543	125	0.481	161	0.351	197	0.196	233	0.126	269	0.125	305	0.169
18	0.461	54	0.536	90	0.542	126	0.478	162	0.347	198	0.193	234	0.126	270	0.125	306	0.172
19	0.464	55	0.537	91	0.541	127	0.476	163	0.343	199	0.189	235	0.126	271	0.125	307	0.175
20	0.467	56	0.538	92	0.540	128	0.473	164	0.338	200	0.185	236	0.126	272	0.125	308	0.179
21	0.470	57	0.539	93	0.539	129	0.470	165	0.334	201	0.182	237	0.125	273	0.125	309	0.182
22	0.473	58	0.540	94	0.538	130	0.467	166	0.329	202	0.179	238	0.125	274	0.126	310	0.185
23	0.476	59	0.541	95	0.537	131	0.464	167	0.325	203	0.175	239	0.125	275	0.126	311	0.189
24	0.478	60	0.542	96	0.536	132	0.461	168	0.320	204	0.172	240	0.125	276	0.126	312	0.193
25	0.481	61	0.543	97	0.535	133	0.458	169	0.316	205	0.169	241	0.125	277	0.126	313	0.196
26	0.484	62	0.543	98	0.534	134	0.455	170	0.311	206	0.166	242	0.125	278	0.126	314	0.200
27	0.487	63	0.544	99	0.533	135	0.451	171	0.307	207	0.163	243	0.125	279	0.127	315	0.204
28	0.489	64	0.545	100	0.531	136	0.448	172	0.302	208	0.161	244	0.125	280	0.127	316	0.208
29	0.492	65	0.545	101	0.530	137	0.445	173	0.298	209	0.158	245	0.125	281	0.128	317	0.211
30	0.494	66	0.546	102	0.529	138	0.441	174	0.293	210	0.155	246	0.125	282	0.128	318	0.215
31	0.496	67	0.546	103	0.527	139	0.438	175	0.289	211	0.153	247	0.125	283	0.129	319	0.220
32	0.499	68	0.546	104	0.526	140	0.434	176	0.284	212	0.151	248	0.126	284	0.130	320	0.224
33	0.501	69	0.547	105	0.524	141	0.431	177	0.280	213	0.149	249	0.126	285	0.131	321	0.228
34	0.503	70	0.547	106	0.523	142	0.427	178	0.276	214	0.146	250	0.126	286	0.132	322	0.232
35	0.505	71	0.547	107	0.521	143	0.424	179	0.271	215	0.144	251	0.126	287	0.133	323	0.236

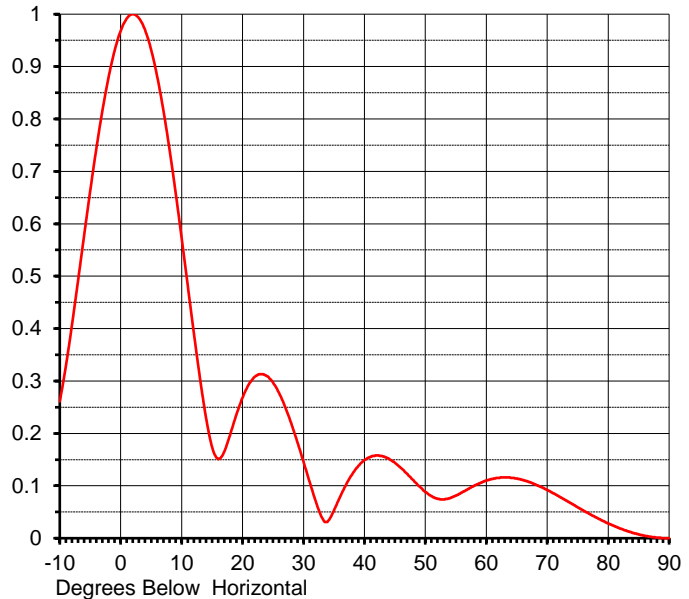
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ELEVATION PATTERN

Proposal No. **WSET-Interim**
 Date **31-Mar-20**
 Call Letters **WSET**
 Channel **7**
 Frequency **177 MHz**
 Antenna Type **TLS-V4B/VP-R**

RMS Directivity at Main Lobe **4.2 (6.18 dB)**
 RMS Directivity at Horizontal **3.9 (5.91 dB)**
Calculated

Beam Tilt **2.00 deg**
 Pattern Number **04T041200-7**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.261	10.0	0.573	30.0	0.146	50.0	0.088	70.0	0.092
-9.0	0.328	11.0	0.483	31.0	0.108	51.0	0.080	71.0	0.086
-8.0	0.407	12.0	0.392	32.0	0.071	52.0	0.075	72.0	0.079
-7.0	0.491	13.0	0.306	33.0	0.040	53.0	0.074	73.0	0.073
-6.0	0.578	14.0	0.230	34.0	0.032	54.0	0.076	74.0	0.066
-5.0	0.663	15.0	0.174	35.0	0.053	55.0	0.081	75.0	0.059
-4.0	0.743	16.0	0.151	36.0	0.079	56.0	0.087	76.0	0.052
-3.0	0.816	17.0	0.165	37.0	0.102	57.0	0.094	77.0	0.046
-2.0	0.879	18.0	0.199	38.0	0.122	58.0	0.100	78.0	0.040
-1.0	0.930	19.0	0.236	39.0	0.138	59.0	0.105	79.0	0.034
0.0	0.968	20.0	0.268	40.0	0.149	60.0	0.110	80.0	0.028
1.0	0.992	21.0	0.293	41.0	0.155	61.0	0.113	81.0	0.023
2.0	1.000	22.0	0.308	42.0	0.158	62.0	0.115	82.0	0.018
3.0	0.992	23.0	0.313	43.0	0.156	63.0	0.116	83.0	0.014
4.0	0.970	24.0	0.309	44.0	0.152	64.0	0.115	84.0	0.010
5.0	0.932	25.0	0.297	45.0	0.144	65.0	0.114	85.0	0.007
6.0	0.880	26.0	0.277	46.0	0.134	66.0	0.111	86.0	0.005
7.0	0.817	27.0	0.250	47.0	0.123	67.0	0.107	87.0	0.003
8.0	0.743	28.0	0.219	48.0	0.111	68.0	0.103	88.0	0.001
9.0	0.661	29.0	0.183	49.0	0.099	69.0	0.098	89.0	0.000
								90.0	0.000

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RADIO FREQUENCY IMPACT, SAFETY & STATEMENT OF COMPLIANCE

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

As shown in Appendix A the WSET-TV channel 7 post-transition interim STA facility proposed herein will operate with a maximum ERP of 41.23 kW from an elliptically polarized directional transmitting antenna with a centerline height of 305 meters above ground level (AGL). Considering the elevation pattern submitted elsewhere in this application, the vertical plane relative field factor is less than 0.200 at all depression angles greater than 28 degrees. The proposed WSET-TV STA facility is predicted to produce a worst-case power density at two meters above ground level, at 649.8 meters from the tower base, of $0.441 \mu\text{W}/\text{cm}^2$, which is 0.22% of the FCC guideline value of $200 \mu\text{W}/\text{cm}^2$ for an "uncontrolled" environment, and 0.044% 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.

WSET-TV 7 Lynchburg, VA - CP Coverage and STA Coverage

WSET-TV.C - CH7

Lynchburg, VA - 177.0 MHz
FACID:73988
File:0000106070
Lat: 37-18-54.50 N
Long: 079-38-05.88 W
ERP: 40.00 kW HAAT: 627.0
RCAMSL: 950.3 m
Ground Elev: 584.9 m
Pattern: Omni

WSET-TV.STA - CH7

Lynchburg, VA - 177.0 MHz
FACID:73988
File:0000106070
Lat: 37-18-55 N
Long: 079-38-05 W
ERP: 41.23 kW HAAT: 567.0
RCAMSL: 889.9 m
Ground Elev: 584.9 m
Pattern: Directional

■ WSET-TV.C (7)
■ WSET-TV.STA (7)

