

ENGINEERING STATEMENT

IN SUPPORT OF

APPLICATION FOR MINOR MODIFICATION OF A LICENSED FACILITY

WEPA-LD

ERIE, PA

Background

Condado Holdings, LLC (Condado), is seeking, in its instant application, to change the transmit location and antenna for WEPA-LD.

Proposed Parameters

Condado is proposing the following parameters for the WXTM-LD digital operation on Ch. 18:

Coordinates:	42° 06' 15.0" N (NAD83) 80° 04' 09.0" W
ERP:	14.7 kW
RCAMSL:	318.5m
RCAGL:	61.0m
Antenna:	Dielectric TLP-8M/VP
Mask:	Full-Service

Antenna System and Tower

Condado intends to install a new side-mounted, directional antenna, a Dielectric TLP-8M/VP, on the registered tower ASR#1037807. WEPA-LD will share this antenna with WXTM-LD. The new antenna will be elliptically polarized. The vertically polarized radiation will not exceed the horizontally polarized component in any azimuth.

Interference

An interference check study was run using the FCC TVStudy software (Version 2.2.5) for the proposed facility parameters (including the use of a Simple Mask). **The study was run using a default cell size parameter of 1.0 km, but a higher terrain profile resolution of 0.1 km.** The results of the study (copy attached hereto) show that potential interference is not predicted to exceed 0.49% to any full-service DTV or Class A stations or 1.99% to any digital low power stations as required by the Commission's Rules. The licensed WXTM-LD facility (LMS File No. 0000178502) was removed from the study as the station is co-owned by Condado and agrees to accept any interference that may occur between the two stations.

Environmental/RFR

This report addresses only the conditions specified in 47CFR1.1307 that deal with Radio Frequency Radiation. Any other non-RFR conditions that might require the preparation of an EA are beyond the scope of this report; since the structure is existing and registered, such conditions should not be an issue requiring further consideration.

The location of the proposed facility is a multi-user site and it is assumed to currently be "in compliance" with FCC guidelines for human exposure to RFR (as defined in OET-65). The worst-case ground level RFR contributed to the site by this proposal is calculated to be

0.009697 mW/cm² at 2m AGL. The calculated RFR is less than 5% of the maximum permissible exposure (MPE) for public areas (0.335333 mW/cm²) at Ch. 19. Per Section 1.1307(b) of the FCC Rules, the proposed operation would be categorically excluded from taking corrective action in areas with levels above the MPE limit where the contribution to the RFR from the proposed facility is less than 5%.

Condado, agrees to comply with the Commission's requirements regarding power adjustments or cessation of operation as may be necessary to ensure a compliant environment for worker access.

Certification

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.



Benjamin Pidek, P.E.
April 2, 2023

Attached:
TVStudy Interference Check Report for Proposed WEPA-LD Facility
Antenna Azimuth and Elevation Pattern Plots and Tabulations

TVStudy TV Interference Check Report for Proposed WEPA-LD Facility on Ch. 19

Study created: 2023.04.02 21:28:48

Study build station data: LMS TV 2023-03-27

Proposal: WEPA-LD D19 LD APP ERIE, PA
File number: WEPA_C19_StateTwr_TLPMr150
Facility ID: 187757
Station data: User record
Record ID: 309
Country: U.S.

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

Search options:
Non-U.S. records included

Individual records excluded:
0000178502 WXTM-LD D18 LD LIC ERIE, PA BLANK0000178502

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WDTB-LD	D18	LD	LIC	HAMBURG, NY	BLANK0000202870	130.4 km
No	WDTB-LD	D18	LD	CP	HAMBURG, NY	BLANK0000203255	130.7
No	WOIO	D18	LD	LIC	SHAKER HEIGHTS, OH	BLANK0000079849	170.8
No	WXMI	D19	DT	LIC	GRAND RAPIDS, MI	BLANK0000143294	453.0
No	W19ET-D	D19	LD	LIC	BATH, NY	BLANK0000160038	198.3
No	WECY-LD	D19	LD	LIC	Elmira, NY	BLANK0000153648	246.7
No	WSTM-TV	D19	DT	LIC	SYRACUSE, NY	BLANK0000136480	336.8
Yes	WKYC	D19	DT	LIC	CLEVELAND, OH	BLANK0000087282	156.3
No	WCLL-CD	D19	DC	LIC	COLUMBUS, OH	BLANK0000052505	343.1
No	WFND-LD	D19	LD	LIC	FINDLAY, OH	BLANK0000055157	317.2
No	WBYD-CD	D19	DC	LIC	PITTSBURGH, PA	BLANK0000096151	187.3
No	WSPZ-LD	D19	LD	LIC	STATE COLLEGE, PA	BLANK0000146397	218.5
No	WTVS	D20	DT	LIC	DETROIT, MI	BLANK0000117036	258.1
No	WWHC-LD	N20	TX	LIC	OLEAN, NY	BLANK0000022154	136.2
No	WWHC-LD	D20	LD	LIC	OLEAN, NY	BLANK0000159579	141.2
No	WOHZ-CD	D20	DC	LIC	Canton, OH	BLANK0000158522	167.9
No	WTCL-LD	D20z	LD	LIC	CLEVELAND, OH	BLANK0000196805	158.8
No	WPGH-TV	D20	DT	LIC	PITTSBURGH, PA	BLANK0000112578	178.9
Yes	CICA-DT	D19	DT	LIC	TORONTO, ON	BLANKCANADA233	179.8
No	CBLT-DT	D20	DT	LIC	TORONTO, ON	BLANKCANADA234	179.8

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D19
Mask: Stringent
Latitude: 42 6 15.00 N (NAD83)
Longitude: 80 4 9.00 W
Height AMSL: 318.5 m
HAAT: 0.0 m
Peak ERP: 14.7 kW
Antenna: DIE TLP-8M 150.0 deg
Elev Pattn: Generic

Elec Tilt: 1.00

49.3 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.553 kW	142.6 m	31.4 km
45.0	6.10	112.7	41.6
90.0	14.5	-62.9	30.9
135.0	12.1	-83.3	30.1
180.0	13.0	-77.8	30.4
225.0	12.1	36.8	32.0
270.0	3.63	129.5	40.2
315.0	0.600	142.9	31.8

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 43 m

**Proposal 24.25 dBu contour crosses Canadian border, coordination required

Distance to Canadian border: 32.2 km

Distance to Mexican border: 2343.9 km

Conditions at FCC monitoring station: Canandaigua NY

Bearing: 67.7 degrees Distance: 246.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 272.6 degrees Distance: 2109.6 km

No land mobile station failures found

Study cell size: 1.00 km

Profile point spacing: 0.10 km

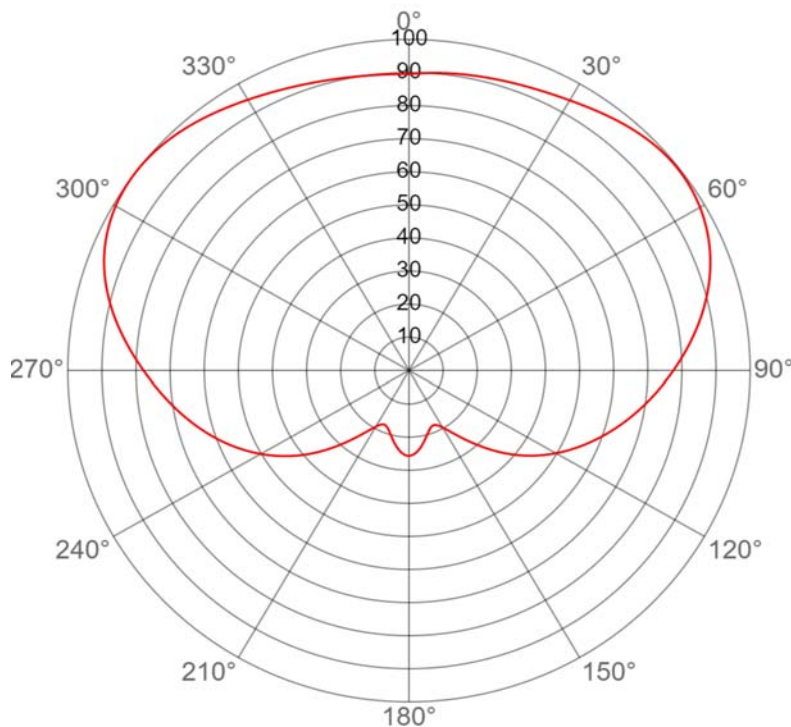
Maximum new IX to full-service and Class A: 0.50%

Maximum new IX to LPTV: 2.00%

---- Below is IX received by proposal WEPA_C19_StateTwr_TLPM ----

Proposal receives 2.12% interference from scenario 1

No IX check failures found.



Horizontal Polarization AZIMUTH PATTERN

Exhibit No.
Date **2 Apr 2023**
Call Letters **WEPA-LD**
Channel **19**
Antenna Type **TLP-8M/VP**
Location **Erie, PA**
Customer **Lilly**

Gain **1.9 (2.79 dB)**
Calculated
Drawing # **TLP-M**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.895	36	0.961	72	0.927	108	0.611	144	0.241	180	0.257	216	0.238	252	0.617	288	0.938	324	0.964
1	0.897	37	0.964	73	0.920	109	0.602	145	0.232	181	0.256	217	0.248	253	0.626	289	0.945	325	0.960
2	0.898	38	0.967	74	0.913	110	0.593	146	0.224	182	0.255	218	0.257	254	0.635	290	0.951	326	0.957
3	0.900	39	0.971	75	0.906	111	0.583	147	0.216	183	0.253	219	0.267	255	0.644	291	0.957	327	0.954
4	0.901	40	0.974	76	0.898	112	0.574	148	0.209	184	0.251	220	0.278	256	0.653	292	0.963	328	0.951
5	0.902	41	0.977	77	0.890	113	0.565	149	0.203	185	0.248	221	0.289	257	0.662	293	0.968	329	0.947
6	0.904	42	0.980	78	0.882	114	0.555	150	0.197	186	0.245	222	0.300	258	0.671	294	0.972	330	0.944
7	0.905	43	0.983	79	0.874	115	0.546	151	0.192	187	0.241	223	0.311	259	0.680	295	0.977	331	0.941
8	0.906	44	0.985	80	0.865	116	0.536	152	0.188	188	0.236	224	0.322	260	0.688	296	0.981	332	0.938
9	0.907	45	0.988	81	0.857	117	0.527	153	0.184	189	0.232	225	0.334	261	0.697	297	0.984	333	0.935
10	0.908	46	0.990	82	0.848	118	0.517	154	0.182	190	0.227	226	0.346	262	0.706	298	0.987	334	0.933
11	0.910	47	0.992	83	0.839	119	0.507	155	0.180	191	0.222	227	0.357	263	0.715	299	0.990	335	0.930
12	0.911	48	0.993	84	0.830	120	0.497	156	0.179	192	0.217	228	0.369	264	0.724	300	0.993	336	0.927
13	0.912	49	0.994	85	0.821	121	0.487	157	0.179	193	0.212	229	0.381	265	0.733	301	0.995	337	0.925
14	0.913	50	0.995	86	0.812	122	0.477	158	0.180	194	0.207	230	0.393	266	0.742	302	0.996	338	0.922
15	0.914	51	0.996	87	0.803	123	0.467	159	0.182	195	0.202	231	0.404	267	0.751	303	0.998	339	0.920
16	0.916	52	0.996	88	0.794	124	0.457	160	0.184	196	0.198	232	0.415	268	0.760	304	0.999	340	0.918
17	0.917	53	0.996	89	0.784	125	0.446	161	0.187	197	0.194	233	0.427	269	0.769	305	1.000	341	0.916
18	0.918	54	0.996	90	0.775	126	0.436	162	0.190	198	0.190	234	0.438	270	0.778	306	1.000	342	0.914
19	0.920	55	0.995	91	0.766	127	0.425	163	0.194	199	0.186	235	0.449	271	0.788	307	1.000	343	0.912
20	0.921	56	0.993	92	0.757	128	0.414	164	0.198	200	0.183	236	0.460	272	0.797	308	1.000	344	0.910
21	0.923	57	0.992	93	0.748	129	0.403	165	0.202	201	0.181	237	0.470	273	0.807	309	0.999	345	0.908
22	0.925	58	0.990	94	0.739	130	0.392	166	0.207	202	0.179	238	0.481	274	0.816	310	0.998	346	0.907
23	0.926	59	0.988	95	0.730	131	0.381	167	0.211	203	0.178	239	0.491	275	0.826	311	0.997	347	0.905
24	0.928	60	0.985	96	0.720	132	0.370	168	0.216	204	0.178	240	0.502	276	0.835	312	0.996	348	0.904
25	0.930	61	0.982	97	0.711	133	0.358	169	0.221	205	0.178	241	0.512	277	0.845	313	0.994	349	0.903
26	0.932	62	0.979	98	0.702	134	0.347	170	0.226	206	0.180	242	0.522	278	0.854	314	0.992	350	0.901
27	0.935	63	0.975	99	0.693	135	0.335	171	0.231	207	0.182	243	0.532	279	0.863	315	0.990	351	0.900
28	0.937	64	0.971	100	0.684	136	0.324	172	0.235	208	0.185	244	0.542	280	0.873	316	0.987	352	0.899
29	0.940	65	0.967	101	0.675	137	0.313	173	0.240	209	0.189	245	0.552	281	0.882	317	0.985	353	0.899
30	0.942	66	0.962	102	0.666	138	0.302	174	0.244	210	0.194	246	0.561	282	0.890	318	0.982	354	0.898
31	0.945	67	0.957	103	0.657	139	0.291	175	0.247	211	0.200	247	0.571	283	0.899	319	0.979	355	0.897
32	0.948	68	0.952	104	0.648	140	0.280	176	0.250	212	0.206	248	0.580	284	0.907	320	0.976	356	0.897
33	0.951	69	0.946	105	0.639	141	0.270	177	0.253	213	0.214	249	0.590	285	0.916	321	0.973	357	0.896
34	0.954	70	0.940	106	0.630	142	0.260	178	0.255	214	0.221	250	0.599	286	0.923	322	0.970	358	0.896
35	0.958	71	0.934	107	0.620	143	0.250	179	0.256	215	0.229	251	0.608	287	0.931	323	0.967	359	0.896

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ELEVATION PATTERN

Exhibit No.

Date

2 Apr 2023

Call Letters

WEPA-LD

Channel

19

Antenna Type

TLP-8M/VP

Location

Erie, PA

Customer

Lilly

RMS Gain at Main Lobe

8.0 (9.03 dB)

Beam Tilt

1 Degrees

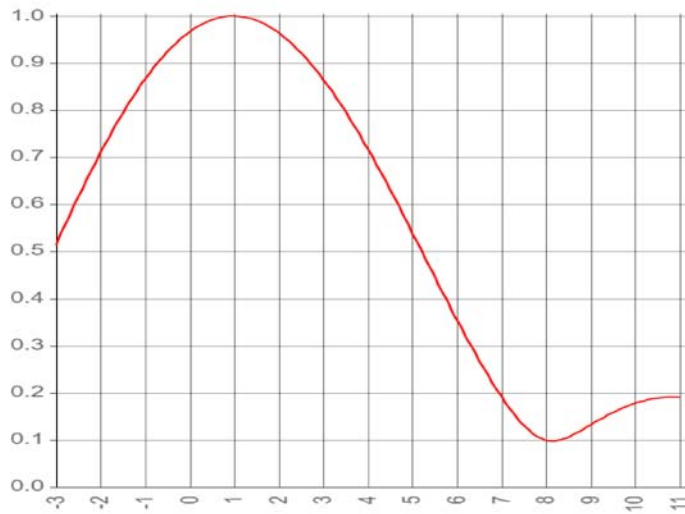
RMS Gain at Horizontal

7.5 (8.74 dB)

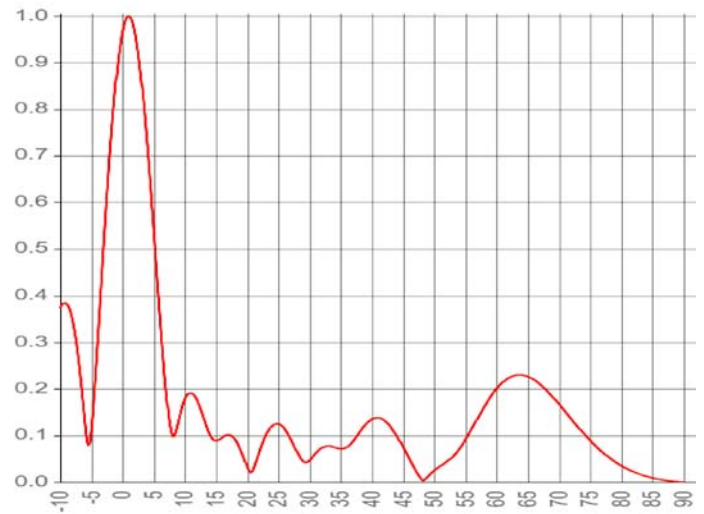
Drawing #

08L080100

Calculated



Degrees below horizontal



Degrees below horizontal

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10	0.374	10	0.178	30	0.047	50	0.025	70	0.167
-9	0.383	11	0.191	31	0.062	51	0.035	71	0.151
-8	0.346	12	0.174	32	0.074	52	0.044	72	0.135
-7	0.258	13	0.137	33	0.077	53	0.055	73	0.119
-6	0.130	14	0.102	34	0.075	54	0.071	74	0.104
-5	0.114	15	0.089	35	0.072	55	0.092	75	0.089
-4	0.303	16	0.096	36	0.075	56	0.115	76	0.076
-3	0.513	17	0.102	37	0.089	57	0.139	77	0.064
-2	0.709	18	0.093	38	0.107	58	0.162	78	0.053
-1	0.866	19	0.067	39	0.124	59	0.183	79	0.043
0	0.967	20	0.032	40	0.135	60	0.201	80	0.035
1	1.000	21	0.029	41	0.138	61	0.215	81	0.028
2	0.964	22	0.067	42	0.132	62	0.224	82	0.022
3	0.865	23	0.100	43	0.119	63	0.229	83	0.017
4	0.717	24	0.121	44	0.099	64	0.230	84	0.012
5	0.539	25	0.125	45	0.075	65	0.227	85	0.009
6	0.355	26	0.114	46	0.050	66	0.220	86	0.006
7	0.192	27	0.092	47	0.025	67	0.209	87	0.004
8	0.099	28	0.064	48	0.005	68	0.197	88	0.002
9	0.132	29	0.044	49	0.013	69	0.183	89	0.001

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