Application for Minor Modification
Post – Repack Construction Permit
Engineering Exhibit

WPXE-TV – Kenosha, WI

Facility ID: 37104

Licensee “ION TELEVISON LICENSE, LLC” is currently authorized to operate on Post-Repack DTV channel 30. The Antenna Structure Registration Number is 1056835 with a Latitude of 043° 05’ 26.0” N+ and a Longitude of 087° 53’ 50.0” W-.

The purpose of this application is to request authority to modify the Auxiliary License (0000027723) to operate on DTV channel 30 from Antenna Structure Registration Number 1056835 with a Latitude of 043° 05’ 26.0” N+ and a Longitude of 087° 53’ 50.0” W-. The HAAT is 260.0 m (AGL 264 m) with an AMSL of 456.2 m. An ERP of 305 kW will be utilized.

This application does have a small amount of coverage outside the full power license facility but this slight expansion is over water and no populous is gained or impacted. See attached RF coverage analysis.

Antenna System

The antenna system is a directional side mounted antenna attached to the guyed tower structure (ASRN 1056835) without impacting the overall height of the structure. Elevation and Azimuth patterns are attached.

RF Hazard (Environmental)

Compliance with RF Hazard (Environmental) is provided in the attached RF Hazard Statement.

Broadcast Facility

73.616 Interference Caused

A calculation using *TVStudy* version 2.2.5 using an LMS database dated 2021-07-22 indicates that there is no excessive new interference created. This study used cell spacing of 2 km and a profile spacing of 1 km.

73.622 Maximum ERP and Antenna Height

The application does not exceed the maximum ERP for the specified HAAT.

Application for Minor Modification
Post – Repack Construction Permit
Engineering Exhibit

73.625 Coverage of Principal Community

The application's ERP will sufficiently cover Kenosha, WI. RF coverage analysis attached.

73.1030 Radio, Research and Receiving Locations

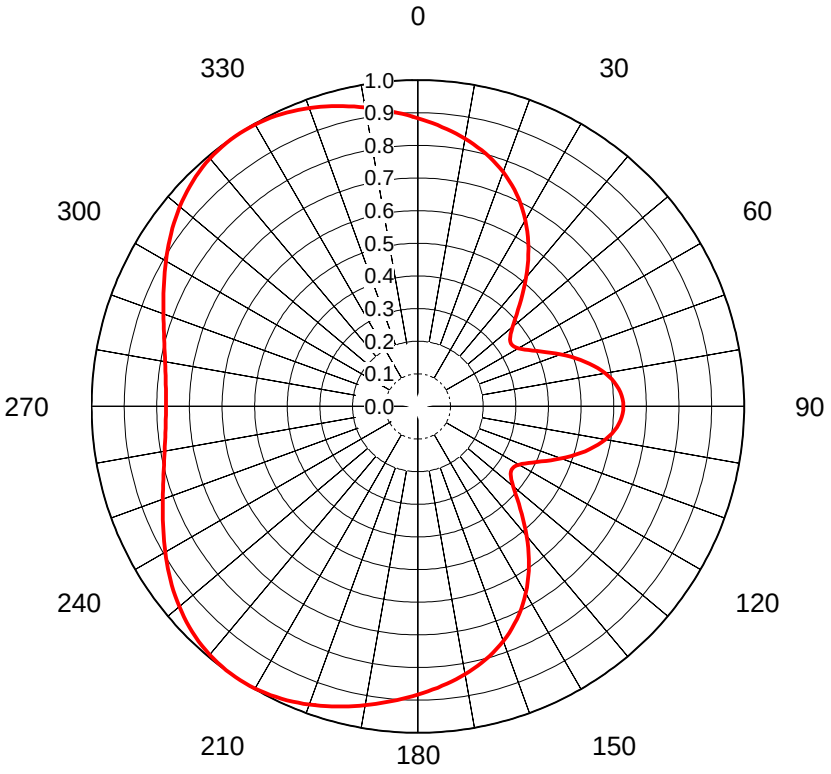
A calculation using *TVStudy* version 2.2.5 using an LMS database dated 2021-07-22 indicates that no excessive interference to any "protected" locations. As such, no coordination or notification is required.

73.1650 International Agreements

The application's transmit location is 401.1 km from Canada. A calculation using *TVStudy* version 2.2.5 using an LMS database dated 2021-07-22 indicates that this application causes no new interference to any Canadian stations.

The application's transmit location is 1905.4 km from Mexico. As such, no coordination or notification is required.

Dielectric®



AZIMUTH PATTERN
Horizontal Polarization

In Free Space

Proposal No.	**C-70624**
Date	**10-Apr-17**
Call Letters	**WPXE**
Channel	**30**
Frequency	**569 MHz**
Antenna Type	**TFU-16WB-1-R C160**
Gain	**1.65 (2.18dB)**
	Calculated

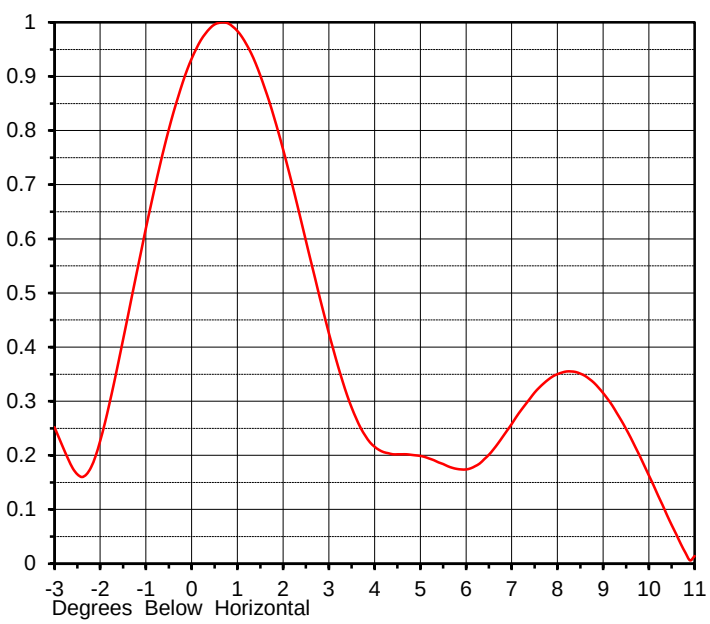
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.884	36	0.576	72	0.492	108	0.493	144	0.579	180	0.883	216	0.999	252	0.821	288	0.819	324	0.998
1	0.879	37	0.561	73	0.505	109	0.480	145	0.594	181	0.888	217	0.998	253	0.816	289	0.824	325	0.999
2	0.874	38	0.546	74	0.518	110	0.466	146	0.608	182	0.893	218	0.997	254	0.811	290	0.830	326	0.999
3	0.869	39	0.531	75	0.530	111	0.453	147	0.622	183	0.897	219	0.995	255	0.807	291	0.835	327	0.999
4	0.864	40	0.516	76	0.542	112	0.440	148	0.635	184	0.902	220	0.993	256	0.803	292	0.841	328	0.999
5	0.859	41	0.501	77	0.553	113	0.427	149	0.648	185	0.906	221	0.990	257	0.798	293	0.847	329	0.999
6	0.854	42	0.485	78	0.564	114	0.415	150	0.661	186	0.911	222	0.988	258	0.795	294	0.853	330	0.998
7	0.849	43	0.470	79	0.574	115	0.403	151	0.674	187	0.916	223	0.985	259	0.791	295	0.859	331	0.996
8	0.844	44	0.455	80	0.583	116	0.392	152	0.685	188	0.920	224	0.981	260	0.788	296	0.866	332	0.995
9	0.839	45	0.441	81	0.592	117	0.381	153	0.697	189	0.925	225	0.977	261	0.785	297	0.872	333	0.993
10	0.833	46	0.427	82	0.600	118	0.372	154	0.708	190	0.930	226	0.973	262	0.782	298	0.878	334	0.991
11	0.827	47	0.414	83	0.607	119	0.364	155	0.719	191	0.934	227	0.969	263	0.780	299	0.885	335	0.988
12	0.821	48	0.401	84	0.613	120	0.357	156	0.729	192	0.939	228	0.964	264	0.778	300	0.891	336	0.986
13	0.815	49	0.389	85	0.618	121	0.352	157	0.739	193	0.943	229	0.960	265	0.776	301	0.898	337	0.983
14	0.809	50	0.379	86	0.622	122	0.349	158	0.748	194	0.948	230	0.954	266	0.775	302	0.904	338	0.980
15	0.802	51	0.369	87	0.626	123	0.347	159	0.757	195	0.952	231	0.949	267	0.774	303	0.911	339	0.976
16	0.795	52	0.361	88	0.628	124	0.347	160	0.765	196	0.956	232	0.943	268	0.773	304	0.917	340	0.973
17	0.788	53	0.354	89	0.629	125	0.348	161	0.774	197	0.961	233	0.938	269	0.772	305	0.923	341	0.969
18	0.780	54	0.349	90	0.630	126	0.352	162	0.781	198	0.965	234	0.932	270	0.772	306	0.929	342	0.965
19	0.772	55	0.346	91	0.629	127	0.357	163	0.789	199	0.969	235	0.926	271	0.772	307	0.935	343	0.961
20	0.764	56	0.344	92	0.628	128	0.364	164	0.796	200	0.972	236	0.920	272	0.773	308	0.941	344	0.957
21	0.756	57	0.345	93	0.626	129	0.372	165	0.803	201	0.976	237	0.913	273	0.773	309	0.947	345	0.953
22	0.746	58	0.347	94	0.622	130	0.382	166	0.810	202	0.979	238	0.907	274	0.774	310	0.952	346	0.949
23	0.737	59	0.350	95	0.618	131	0.392	167	0.816	203	0.983	239	0.900	275	0.776	311	0.957	347	0.944
24	0.727	60	0.356	96	0.613	132	0.404	168	0.822	204	0.986	240	0.894	276	0.777	312	0.962	348	0.940
25	0.717	61	0.363	97	0.607	133	0.417	169	0.828	205	0.988	241	0.887	277	0.779	313	0.967	349	0.935
26	0.706	62	0.371	98	0.600	134	0.430	170	0.833	206	0.991	242	0.881	278	0.781	314	0.971	350	0.930
27	0.695	63	0.380	99	0.592	135	0.444	171	0.839	207	0.993	243	0.874	279	0.784	315	0.976	351	0.926
28	0.683	64	0.391	100	0.584	136	0.459	172	0.844	208	0.995	244	0.868	280	0.787	316	0.979	352	0.921
29	0.671	65	0.402	101	0.574	137	0.474	173	0.849	209	0.997	245	0.862	281	0.790	317	0.983	353	0.916
30	0.659	66	0.414	102	0.564	138	0.489	174	0.854	210	0.998	246	0.856	282	0.793	318	0.986	354	0.912
31	0.646	67	0.427	103	0.554	139	0.504	175	0.859	211	0.999	247	0.849	283	0.797	319	0.989	355	0.907
32	0.633	68	0.439	104	0.542	140	0.519	176	0.864	212	1.000	248	0.843	284	0.801	320	0.992	356	0.902
33	0.619	69	0.453	105	0.531	141	0.534	177	0.869	213	1.000	249	0.838	285	0.805	321	0.994	357	0.898
34	0.605	70	0.466	106	0.518	142	0.549	178	0.874	214	1.000	250	0.832	286	0.810	322	0.996	358	0.893
35	0.591	71	0.479	107	0.506	143	0.564	179	0.878	215	1.000	251	0.826	287	0.814	323	0.997	359	0.888

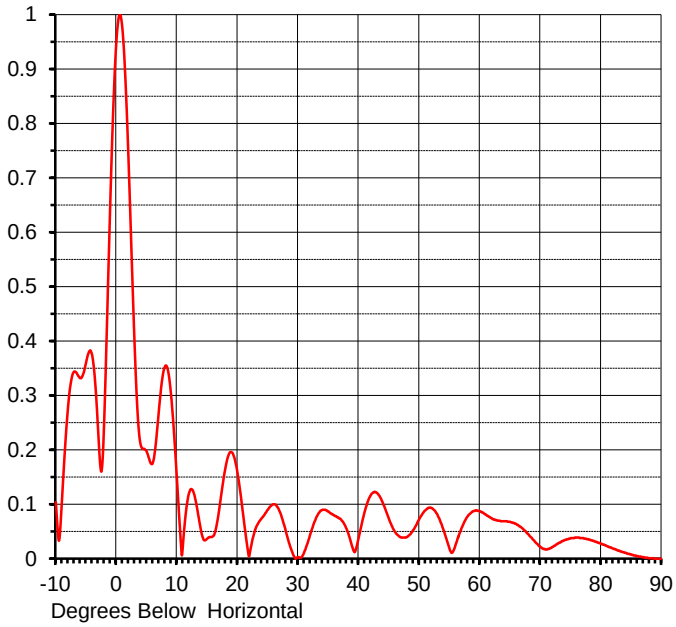
ELEVATION PATTERN

Proposal No.	**C-70624**
Date	**10-Apr-17**
Call Letters	**WPXE**
Channel	**30**
Frequency	**569 MHz**
Antenna Type	**TFU-16WB-1-R C160**

RMS Directivity at Main Lobe	**14.5 (11.61 dB)**	Beam Tilt	**0.55 deg**
RMS Directivity at Horizontal	**13.1 (11.17 dB)**	Pattern Number	**16W145055**

Calculated





Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.104	10.0	0.145	30.0	0.003	50.0	0.073	70.0	0.022
-9.0	0.105	11.0	0.028	31.0	0.012	51.0	0.089	71.0	0.017
-8.0	0.277	12.0	0.121	32.0	0.045	52.0	0.093	72.0	0.022
-7.0	0.344	13.0	0.111	33.0	0.076	53.0	0.081	73.0	0.029
-6.0	0.332	14.0	0.050	34.0	0.090	54.0	0.053	74.0	0.034
-5.0	0.361	15.0	0.037	35.0	0.087	55.0	0.018	75.0	0.038
-4.0	0.374	16.0	0.042	36.0	0.079	56.0	0.026	76.0	0.039
-3.0	0.232	17.0	0.093	37.0	0.073	57.0	0.057	77.0	0.038
-2.0	0.259	18.0	0.167	38.0	0.055	58.0	0.078	78.0	0.035
-1.0	0.659	19.0	0.196	39.0	0.020	59.0	0.088	79.0	0.032
0.0	0.951	20.0	0.157	40.0	0.039	60.0	0.087	80.0	0.028
1.0	0.973	21.0	0.074	41.0	0.087	61.0	0.081	81.0	0.023
2.0	0.733	22.0	0.009	42.0	0.117	62.0	0.074	82.0	0.019
3.0	0.395	23.0	0.056	43.0	0.121	63.0	0.070	83.0	0.015
4.0	0.210	24.0	0.075	44.0	0.102	64.0	0.069	84.0	0.011
5.0	0.197	25.0	0.090	45.0	0.073	65.0	0.068	85.0	0.008
6.0	0.176	26.0	0.100	46.0	0.049	66.0	0.064	86.0	0.005
7.0	0.271	27.0	0.086	47.0	0.039	67.0	0.056	87.0	0.003
8.0	0.353	28.0	0.049	48.0	0.040	68.0	0.045	88.0	0.001
9.0	0.304	29.0	0.013	49.0	0.053	69.0	0.033	89.0	0.000
								90.0	0.000

WPXE - AUX Application
Latitude: 43-05-26 N
Longitude: 087-53-50 W
ERP: 305.00 kW
Channel: 30
Frequency: 569.0 MHz
AGL: 264.0 m
HAAT: 260.0 m
AMSL: 456.2 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.55
Prop Model: None

Oshkosh
Fond du Lac
Sheboygan
Columbia
Beaver Dam
West Bend
Washington
Cedarburg
Mequon
Ozaukee
WPXE - License
WPXE - AUX Application
Sun Prairie
Watertown
Menomonee Falls
Oconomowoc
Whitefish Bay
Madison
Jefferson
Waukesha
Milwaukee
Fitchburg
Stoughton
Fort Atkinson
Greenfield
Franklin
Whitewater
Racine
COL
Green
Janesville
Walworth
Monroe
Kenosha
Beloit
Zion
Waukegan
McHenry
Crystal Lake
Mundelein
Vernon Hills
Algonquin
Buffalo Grove

Contour Legend
- Dipole Adjusted Noise Limited (0000087614)
- Dipole Adjusted Noise Limited (AUX Application)
- 48 dBu Service (AUX Application)