

**WCPX-LP MINOR MODIFICATION TO CONSTRUCTION PERMIT FOR CH 25 15 kW DIRECTIONAL
FACILITY ID 53397 BDISDTL-20080905AEC
COLUMBUS, OHIO
ENGINEERING NARRATIVE AND RF RADIATION ENVIRONMENTAL ANALYSIS
APRIL 2019**

WCPX-LP is licensed for operation on CH 48 and holds a CP for CH 25. This application proposes a minor change in the CP facilities, BDISDTL-20080905AEC. The proposed facility qualifies as a minor change as there is no change in channel of operation, there is significant overlap of the present and proposed LPTV service contours and the proposed site is 1.2 kilometers from the license/CP site in compliance with 74.787 (b) (iii). FCC TVStudy software was utilized to determine the interference levels associated with the proposed WCPX-LP facility and they are pasted in below.

The applicant proposes herein to move to FCC Tower registration ASR 1014195. The proposed antenna system consists of an ATC ATC-BCE58CRR-V2-25 antenna oriented at an azimuth bearing of 150.0 degrees True. The antenna is a UHF slot antenna, elliptically polarized, with 1.25 degree of beam tilt. The maximum relative field in the elevation pattern across the depression angle range of 30 to 90 degrees is less than 0.13 with a radiation center 146.3 meters above ground. Utilizing formula 10 OF OET Bulletin No. 65, Edition 97-01, a value F of 0.13 has been used to calculate the power density 2 meters above ground. The maximum power density is 6.1 uw/cm squared calculated for an ERP OF 15,000 watts H. polarization and 7,500 watts V. polarization. This value is 1.7% of the Public Exposure MPE per section 1.1310. Based on this analysis it is believed that the proposed facility follows OET-65 Guidelines.

The applicant will reduce power or cease transmission as required to meet FCC OET-65 Guidelines.

The proposed tower is existing along with the transmitter building, access road and power.

Below is a copy of the TVStudy interference analysis for CH 25 based on the facilities described above with the antenna orientation of 150 degrees true. As can be seen at the conclusion of the report there is no impermissible ISIX interference. It is believed that the proposed facility provides full protection to other television facilities.

TVStudy Report:

Study created: 2019.03.24 13:48:21
 Study build station data: LMS TV 2019-03-22
 Proposal: WCPX-LP D25 LD CP COLUMBUS, OH
 File number: BDISDTL20080905AEC
 Facility ID: 53397
 Station data: User record
 Record ID: 173
 Country: U.S.

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WPNM-LP	N18z	TX	LIC	LEIPSIC, OH	BLTTL19990407JA	120.7 km
No	W22DE	N22+	TX	LIC	DAYTON, OH	BLTTL20100511AAU	110.4
No	WPTA	D24	DT	CP	FORT WAYNE, IN	BLANK0000068069	217.8
No	WPTA	D24	DT	LIC	FORT WAYNE, IN	BLANK0000068624	217.8
No	WPTA	D24	DT	LIC	FORT WAYNE, IN	BLANK0000064331	217.8
No	WKON	D24	DT	CP	OWENTON, KY	BLANK0000034637	226.4
No	WPXD-TV	D24	DT	CP	ANN ARBOR, MI	BLANK0000034355	274.3
No	WEAO	D24	DT	CP	AKRON, OH	BLANK0000034293	166.5
No	WDEM-CD	D24	DC	CP	COLUMBUS, OH	BLANK0000034853	9.8
No	WOIO	D24	LD	LIC	SHAKER HEIGHTS, OH	BLCDT20110817AAW	168.1
No	WVAH-TV	D24	DT	CP	CHARLESTON, WV	BLANK0000027764	204.2
No	W24DS-D	D24	LD	LIC	PARKERSBURG, WV	BLDTL20140527AHY	153.0
No	WTTW	D25	DT	CP	CHICAGO, IL	BLANK0000034877	438.1
No	W43DI-D	D25	LD	CP	FORT WAYNE, IN	BLANK0000052700	214.9
No	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623ACJ	270.6
No	WCWW-LD	D25	LD	CP	SOUTH BEND, IN	BLANK0000054334	318.9
No	WCWW-LD	D25	LD	LIC	SOUTH BEND, IN	BLDTL20121022ABV	318.9
No	W50CI-D	D25	LD	CP	LOUISVILLE, KY	BLANK0000051790	304.4

No	WUPX-TV	D25	DT	APP	RICHMOND, KY	BLANK0000064267	286.7
No	WXYZ-TV	D25	DT	CP	DETROIT, MI	BLANK0000034678	272.4
No	WJGP-LD	D25	LD	CP	KALAMAZOO, MI	BLANK0000054651	303.5
No	WUEK-LD	D25	LD	LIC	CANTON, OH	BLANK0000067575	198.1
Yes	WXCB-CD	D25	DC	CP	DELAWARE, OH	BLANK0000034022	65.9
No	W32DS-D	D25	LD	CP	MAPLEWOOD, OH	BLANK0000054368	139.1
No	WSSS-LP	N25z	TX	LIC	STEUBENVILLE, OH	BLTTL19980506JD	210.6
No	WWBP-LP	N25-	TX	LIC	FREEDOM, PA	BLTTL19990124JD	246.7
No	KDKA-TV	D25	DT	LIC	PITTSBURGH, PA	BLCDT20041004ACS	260.6
No	WLFB	D25	DT	CP	BLUEFIELD, WV	BLANK0000034862	347.7
No	WCPO-TV	D26	DT	CP	CINCINNATI, OH	BLANK0000034668	160.8
No	WCSN-LD	D26	LD	CP	COLUMBUS, OH	BLANK0000053697	1.2
No	WIVD-LD	D26	LD	APP	NEWCOMERSTOWN, OH	BLANK0000054238	135.0
No	WUPW	D26	DT	CP	TOLEDO, OH	BLANK0000034234	184.6
No	W30DG-D	D26	LD	CP	HUNTINGTON, WV	BLANK0000053620	186.4
No	WIYE-LD	D26	LD	CP	PARKERSBURG, WV	BLANK0000052516	146.0
No	WWRD-LP	N32+	TX	LIC	DAYTON, OH	BLTTL20071011AAP	97.7
No	W33BW	N33+	TX	LIC	ASHLAND, OH	BLTTL20020211ABL	100.5

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D25
Mask: Full Service

Latitude: 40 1 30.60 N (NAD83)
Longitude: 83 1 45.20 W

Height AMSL: 372.0 m
HAAT: 0.0 m
Peak ERP: 15.0 kW

Antenna: CUSTOM 8 SLOT REDUCED REAR 03242019 150.0 deg

Elev Pattn: Generic
Elec Tilt: 1.25

49.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.054 kW	121.5 m	17.0 km
45.0	0.182	106.2	22.1
90.0	1.35	116.8	33.6
135.0	12.4	130.9	45.8
180.0	7.63	153.8	44.9
225.0	0.513	112.0	28.1
270.0	0.122	99.4	19.2
315.0	0.037	103.9	14.6

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 118 m

Proposal 24.85 dBu contour does not cross Canadian border

Distance to Canadian border: 185.9 km

Distance to Mexican border: 2012.4 km

Conditions at FCC monitoring station: Allegan MI

Bearing: 320.5 degrees Distance: 376.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 277.6 degrees Distance: 1882.6 km

Study cell size: 0.50 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%

No IX check failures found.

TVIX Study

tvstudy v2.2.5 (4uoc83)

Database: 127.0.0.1, Study: BDISDTL20080905AEC #291, Model: Longley-Rice

Start: 2019.04.11 11:56:48

Study created: 2019.04.11 11:56:48

Study build station data: LMS TV 2019-04-10

Proposal: WCPX-LP D25 LD CP COLUMBUS, OH

File number: BDISDTL20080905AEC

Facility ID: 53397

Station data: User record

Record ID: 200

Country: U.S.

Build options:

Protect pre-transition records not on baseline channel

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No	WPNM-LP	N18z	TX	LIC	LEIPSIC, OH	BLTTL19990407JA	120.7 km
No	W22DE	N22+	TX	LIC	DAYTON, OH	BLTTL20100511AAU	110.4
No	WPTA	D24	DT	LIC	FORT WAYNE, IN	BLANK0000068624	217.8
No	WCVN-TV	D24	DT	LIC	COVINGTON, KY	BLEDT20020201ABJ	168.1
No	WKON	D24	DT	CP	OWENTON, KY	BLANK0000034637	226.4
No	WPXD-TV	D24	DT	CP	ANN ARBOR, MI	BLANK0000034355	274.3
No	WEAO	D24	DT	CP	AKRON, OH	BLANK0000034293	166.5
No	WDEM-CD	D24	DC	CP	COLUMBUS, OH	BLANK0000034853	9.8
No	WOIO	D24	LD	LIC	SHAKER HEIGHTS, OH	BLCDDT20110817AAW	168.1
No	WVAH-TV	D24	DT	CP	CHARLESTON, WV	BLANK0000027764	204.2
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No	WJGP-LD	D25	LD	CP	KALAMAZOO, MI	BLANK0000054651	303.5
No	WLAJ	D25	DT	LIC	LANSING, MI	BLANK0000055596	294.1
No	WUEK-LD	D25	LD	LIC	CANTON, OH	BLANK0000067575	198.1

Yes	WXCB-CD	D25	DC	CP	DELAWARE, OH	BLANK0000034022	65.9
No	W32DS-D	D25	LD	CP	MAPLEWOOD, OH	BLANK0000054368	139.1
No	WSSS-LP	N25z	TX	LIC	STEUBENVILLE, OH	BLTTL19980506JD	210.6
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No	WLFB	D25	DT	CP	BLUEFIELD, WV	BLANK0000034862	347.7
No	WKAS	D26	DT	LIC	ASHLAND, KY	BLEDT20020404ABM	177.3
No	WCPO-TV	D26	DT	CP	CINCINNATI, OH	BLANK0000034668	160.8
No	WVIZ	D26	DT	LIC	CLEVELAND, OH	BLANK0000006262	188.8
No	WCSN-LD	D26	LD	CP	COLUMBUS, OH	BLANK0000053697	1.2
No	WIVD-LD	D26	LD	APP	NEWCOMERSTOWN, OH	BLANK0000054238	135.0
No	WUPW	D26	DT	CP	TOLEDO, OH	BLANK0000034234	184.6
No	W30DG-D	D26	LD	CP	HUNTINGTON, WV	BLANK0000053620	186.4
No	WIYE-LD	D26	LD	CP	PARKERSBURG, WV	BLANK0000052516	146.0
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 Antenna: CUSTOM 8 SLOT REDUCED REAR 03242019 150.0 deg
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49.9 dBu contour:

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Conditions at Table Mountain receiving zone:
Bearing: 277.6 degrees Distance: 1882.6 km

Study cell size: 1.00 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 BLANK0000034022 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WXCB-CD	D25	DC	CP	DELAWARE, OH	BLANK0000034022	
Undesireds:	WCPX-LP	D25	LD	CP	COLUMBUS, OH	BDISDTL20080905AEC	65.9 km
	WEAO	D24	DT	CP	AKRON, OH	BLANK0000034293	136.2
	WDEM-CD	D24	DC	CP	COLUMBUS, OH	BLANK0000034853	75.7
	WUPX-TV	D25	DT	CP	RICHMOND, KY	BLANK0000064267	341.1
	WXYZ-TV	D25	DT	CP	DETROIT, MI	BLANK0000034678	206.7
	KDKA-TV	D25	DT	LIC	PITTSBURGH, PA	BLCDT20041004ACS	263.1
	WUPW	D26	DT	CP	TOLEDO, OH	BLANK0000034234	118.9

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
5266.0 227,824	5263.1 227,627	5258.1 227,597	5248.1 227,241	0.19 0.16

Undesired	Total IX	Unique IX, before	Unique IX, after
WCPX-LP D25 LD CP 10.0 356	10.0 356		
WXYZ-TV D25 DT CP 3.0 0	1.0 0		
KDKA-TV D25 DT LIC 4.0 30	2.0 30		

Interference to BLANK0000034022 CP scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WXCB-CD	D25	DC	CP	DELAWARE, OH	BLANK0000034022	
Undesireds:	WCPX-LP	D25	LD	CP	COLUMBUS, OH	BDISDTL20080905AEC	65.9 km
	WEAO	D24	DT	CP	AKRON, OH	BLANK0000034293	136.2
	WDEM-CD	D24	DC	CP	COLUMBUS, OH	BLANK0000034853	75.7
	WUPX-TV	D25	DT	CP	RICHMOND, KY	BLANK0000064267	341.1
	WXYZ-TV	D25	DT	BL	DETROIT, MI	DTVBL10267	206.7
	KDKA-TV	D25	DT	LIC	PITTSBURGH, PA	BLCDT20041004ACS	263.1
	WUPW	D26	DT	CP	TOLEDO, OH	BLANK0000034234	118.9
	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	5266.0	227,824	5263.1	227,627	5258.1	227,597	5248.1 227,241 0.19 0.16
Undesired			Total IX	Unique IX, before		Unique IX, after	
WCPX-LP D25 LD CP			10.0	356		10.0 356	
WXYZ-TV D25 DT BL			3.0	0 1.0 0		1.0 0	
KDKA-TV D25 DT LIC			4.0	30 2.0 30		2.0 30	

Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WCPX-LP	D25	LD	CP	COLUMBUS, OH	BDISDTL20080905AEC	
Undesireds:	WDEM-CD	D24	DC	CP	COLUMBUS, OH	BLANK0000034853	9.8 km
	WXCB-CD	D25	DC	CP	DELAWARE, OH	BLANK0000034022	65.9
	KDKA-TV	D25	DT	LIC	PITTSBURGH, PA	BLCDT20041004ACS	260.6
	WCSN-LD	D26	LD	CP	COLUMBUS, OH	BLANK0000053697	1.2
	Service area	Terrain-limited		IX-free		Percent IX	
	2882.2	1,357,943	2875.1	1,357,804	2804.7	1,345,680	2.45 0.89
Undesired			Total IX	Unique IX		Prcnt Unique IX	
WDEM-CD D24 DC CP			26.2	5,117 23.2 4,824		0.81 0.36	
WXCB-CD D25 DC CP			42.2	6,269 35.2 5,839		1.22 0.43	
KDKA-TV D25 DT LIC			7.0	154 2.0 17		0.07 0.00	
WCSN-LD D26 LD CP			3.0	1,014 2.0 1,014		0.07 0.07	

The foregoing was prepared on behalf of Roseland Broadcasting of Corpus Christi Licenses, LLC by Clarence M. Beverage of *Communications Technologies, Inc.*, Marlton, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements she believes them to be true and correct.



Clarence M. Beverage
for Communications Technologies, Inc.
Marlton, New Jersey
April 11, 2019

