TECHNICAL STATEMENT
RE: MINOR CHANGE APPLICATION TO MODIFY
CONSTRUCTION PERMIT, LMS FILE NO. 0000035732
WPTA 444 KW ERP 228.6 M HAAT CH. 24
FORT WAYNE, INDIANA

INTRODUCTION

WPTA License, LLC (the "Applicant"), the licensee of digital television station WPTA, Facility ID No. 73905, seeks to modify the underlying construction permit (CP) that was previously issued for WPTA through the temporary lifting of the freeze by the Media Bureau.[1] This CP authorizes a power increase for expanding WPTA's noise-limited contour beyond its licensed facilities. The Applicant is now proposing to reduce the authorized maximum effective radiated power (ERP) from 526 kW down to 444 kW. This minor change will still enable WPTA to expand its noise-limited contour, but by a lesser amount than before.

MINOR CHANGE IN CP FACILITY

As stated above, the Applicant proposes to operate WPTA at the lower ERP of 444 kW for the purpose of expanding its licensed noise-limited contour. For this modification the station will employ its existing panel antenna system, Dielectric Model TUA-O4-10/40H-1-T-R, based on the same azimuth pattern relative field data and rotation authorized in the underlying CP. Furthermore, the antenna radiation center height will remain as previously authorized at 476.6 meters above mean sea level (AMSL), which as determined before results in a height above average terrain (HAAT) of 228.6 meters. It is therefore impossible for the aforementioned modification to result in any extension of the protected contour that was previously approved through the temporary lifting of the freeze.

With regard to interference protection, the proposed modification is not predicted to cause more than 0.5 percent new interference to other stations during the incentive auction

[1] See LMS File Number: 0000035732. Also see *Media Bureau Temporarily Lifts the Freeze on the Filing of Minor Modifications Applications That Expand the Contour of Full Power and Class A Television Stations From November 28 Through December 7, 2017*, Public Notice, DA 17-1086 (rel. Nov. 6, 2017).

transition or after its completion.[2] This determination is confirmed by the *TVStudy* analysis summary attached as Figure 1, which indicates no interference check failures were found.[3] This analysis was conducted using a terrain profile resolution of 10 points per kilometer, which is a higher resolution than the normal standard setting.

The contour map attached as Figure 2 depicts the noise-limited and city-grade service contours.

ENVIRONMENTAL IMPACT

As described in greater detail below, the Applicant intends to operate WPTA in full compliance with the guidelines for limiting human exposure to radio-frequency (RF) energy in 47 CFR § 1.1307(b). Given that the RF exposure requirements will be met and the proposed modification involves the use of an existing antenna, this application is categorically excluded from environmental processing under 47 CFR § 1.1306.[4]

A summary of WPTA's technical parameters are listed below:

Frequency:	530 - 536 MHz (UHF Channel 24)
Effective Radiated Power:	444 kW
Antenna Type:	DIE TUA-O4-10/40H-1-T-R
Antenna Polarization:	Horizontal
Rotation:	40 degrees
Antenna Height:	227.9 meters above ground level (AGL)
Location coordinates:	41-06-07.6 N, 85-11-03.6 W (NAD83)
Site elevation:	248.7 meters above mean sea level (AMSL)
Overall tower height:	235.0 meters AGL
FCC ASRN:	1306723

Using the methodology for predicting power density levels for television broadcast antennas outlined in *FCC OET Bulletin No. 65, Edition 97-01,* (OET-65), the proposed increase in

[2] During the transition, the FCC is allowing a temporary increased pairwise (station-to-station) interference of up to two percent. See Transition Scheduling Plan Adoption Public Notice (DA 17-107, rel. Jan. 27, 2017).

[3] *TVStudy* Program, Version 2.2.5., was used along with the following OET-69 analysis settings: cell size = 2.0 km; profile point spacing = 0.1 km).

[4] See 47 CFR §1.1306, Note 1. Applications that seek to utilize an antenna mounted on an existing tower in compliance the safety standards for human exposure to RF fields specified in 47 CFR §1.1307(b) are not required to prepare an environmental assessment (EA).

WPTA's facilities is calculated to produce a maximum power density of 2.91 μW/cm² at points 2 meters above ground (approximate human head height). This exposure level was determined using 10 percent antenna relative field, which is generally considered to be a typical value for UHF antennas. The maximum exposure limits applicable to Channel 24, as determined in accordance with 47 CFR § 1.1310 for uncontrolled and controlled situations, are 353 μW/cm² and 1,767 μW/cm² respectively. Because the worst-case exposure level determined for WPTA is not more than 5% of those guidelines and considering warning signs are posted to establish awareness of the potential for exposure, no further showing of compliance is necessary.

Steps to limit exposure to persons authorized to access the transmitter site will be consistent with the appropriate recommendations in OET-65. All maintenance and other related work to be performed at elevations higher than 2 meters above ground will be coordinated to prevent exposure to RF fields in excess of the controlled limit. Such preventative steps shall include reducing power or shutting down the facility.

Respectfully submitted,

Scott Turpie
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February 22, 2019

Attachment
Figure 1 – TVStudy Results
Figure 2 – DTV Service Contours

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FIGURE 1
Interference Analysis Summary
TVSTUDY, VERSION 2.2.5.

Study created: 2019.02.22 13:31:20

Study build station data: LMS TV 2019-02-21

```
    Proposal: WPTA D24 DT APP FORT WAYNE, IN
 File number: WPTA 0000035732-MOD KM-10pts
 Facility ID: 73905
Station data: User record
   Record ID: 455
     Country: U.S.
        Zone: I
```

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

Search options:
Non-U.S. records included

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WCIU-TV	D23	DT	CP	CHICAGO, IL	BLANK0000034608	221.6 km
No	WCIU-TV	D23	DT	BL	CHICAGO, IL	DTVBL71428	221.6
No	WDTI	D23	DT	CP	INDIANAPOLIS, IN	BLANK0000034481	159.6
No	WDTI	D23	DT	BL	INDIANAPOLIS, IN	DTVBL7908	159.6
Yes	WIPB	D23	DT	LIC	MUNCIE, IN	BLEDT20090717ABL	113.5
No	WBSF	D23	DT	CP	BAY CITY, MI	BLANK0000034870	264.2
No	WWHO	D23	DT	CP	CHILLICOTHE, OH	BLANK0000034759	224.0
No	WWHO	D23	DT	BL	CHILLICOTHE, OH	DTVBL21158	243.1
No	WNWO-TV	D23	DT	CP	TOLEDO, OH	BLANK0000033631	164.9
No	WNWO-TV	D23	DT	BL	TOLEDO, OH	DTVBL73354	164.9
Yes	WFLD	D24	DT	CP	CHICAGO, IL	BLANK0000034486	221.6
Yes	WFLD	D24	DT	BL	CHICAGO, IL	DTVBL22211	221.6
No	WHOI	D24	DT	CP	PEORIA, IL	BLANK0000034285	373.3
No	WHOI	D24	DT	BL	PEORIA, IL	DTVBL6866	373.3
No	WJTS-CD	D24	DC	CP	JASPER, IN	BLANK0000028094	335.1
No	WJTS-CD	D24	DC	BL	JASPER, IN	DTVBL168419	335.1
No	WNKY	D24	DT	CP	BOWLING GREEN, KY	BLANK0000025367	460.1
No	WNKY	D24	DT	BL	BOWLING GREEN, KY	DTVBL61217	460.2
Yes	WCVN-TV	D24	DT	LIC	COVINGTON, KY	BLEDT20020201ABJ	237.3
No	WKYI-CD	D24	DC	LIC	LOUISVILLE, KY	BLDTA20091030AGQ	309.3
Yes	WKON	D24	DT	CP	OWENTON, KY	BLANK0000034637	288.2
No	WKON	D24	DT	BL	OWENTON, KY	DTVBL34211	288.2
No	WCML	D24	DT	LIC	ALPENA, MI	BLEDT20110707ABQ	456.2
Yes	WPXD-TV	D24	DT	CP	ANN ARBOR, MI	BLANK0000034355	218.3
Yes	WPXD-TV	D24	DT	BL	ANN ARBOR, MI	DTVBL5800	218.3
Yes	WTLJ	D24	DT	LIC	MUSKEGON, MI	BLANK0000001674	214.5
Yes	WEAO	D24	DT	CP	AKRON, OH	BLANK0000034293	297.4

Yes	WEAO	D24	DT	BL	AKRON, OH	DTVBL49421	297.4
Yes	WDEM-CD	D24	DC	CP	COLUMBUS, OH	BLANK0000034853	224.0
Yes	WDEM-CD	D24	DC	BL	COLUMBUS, OH	DTVBL54414	221.3
No	WJET-TV	D24	DT	LIC	ERIE, PA	BLCDT20090615ACF	437.9
No	WBME-CD	D24	DC	LIC	MILWAUKEE, WI	BLANK0000040426	318.0
No	WVAH-TV	D24	DT	CP	CHARLESTON, WV	BLANK0000027764	410.2
No	WVAH-TV	D24	DT	BL	CHARLESTON, WV	DTVBL417	410.2
No	WTTW	D25	DT	CP	CHICAGO, IL	BLANK0000034877	221.6
No	WTTW	D25	DT	BL	CHICAGO, IL	DTVBL10802	221.6
No	WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623ACJ	158.9
No	WXYZ-TV	D25	DT	CP	DETROIT, MI	BLANK0000034678	221.0
No	WXYZ-TV	D25	DT	BL	DETROIT, MI	DTVBL10267	221.0
No	WLAJ	D25	DT	LIC	LANSING, MI	BLANK0000055596	156.4
No	WXCB-CD	D25	DC	CP	DELAWARE, OH	BLANK0000034022	181.1
No	WXCB-CD	D25	DC	BL	DELAWARE, OH	DTVBL59852	181.1

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

```
    Channel: D24
   Latitude:  41  6  7.60 N (NAD83)
  Longitude:  85 11  3.60 W
Height AMSL: 476.6 m
       HAAT: 228.6 m
   Peak ERP: 444 kW
    Antenna: Dielectric-TUA-04-10/40H-1-T-R (ID 1003958) 40.0 deg
Elev Pattrn: Generic
  Elec Tilt: 0.50
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39.8 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	352 kW	217.9 m	80.1 km
45.0	433	230.0	82.2
90.0	352	239.8	81.8
135.0	433	235.2	82.7
180.0	352	239.0	81.7
225.0	433	231.7	82.4
270.0	352	218.0	80.1
315.0	433	217.4	81.3

**Proposal is within coordination distance of Canadian border
Distance to Canadian border: 195.4 km

Distance to Mexican border: 1928.8 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 339.3 degrees Distance: 178.9 km

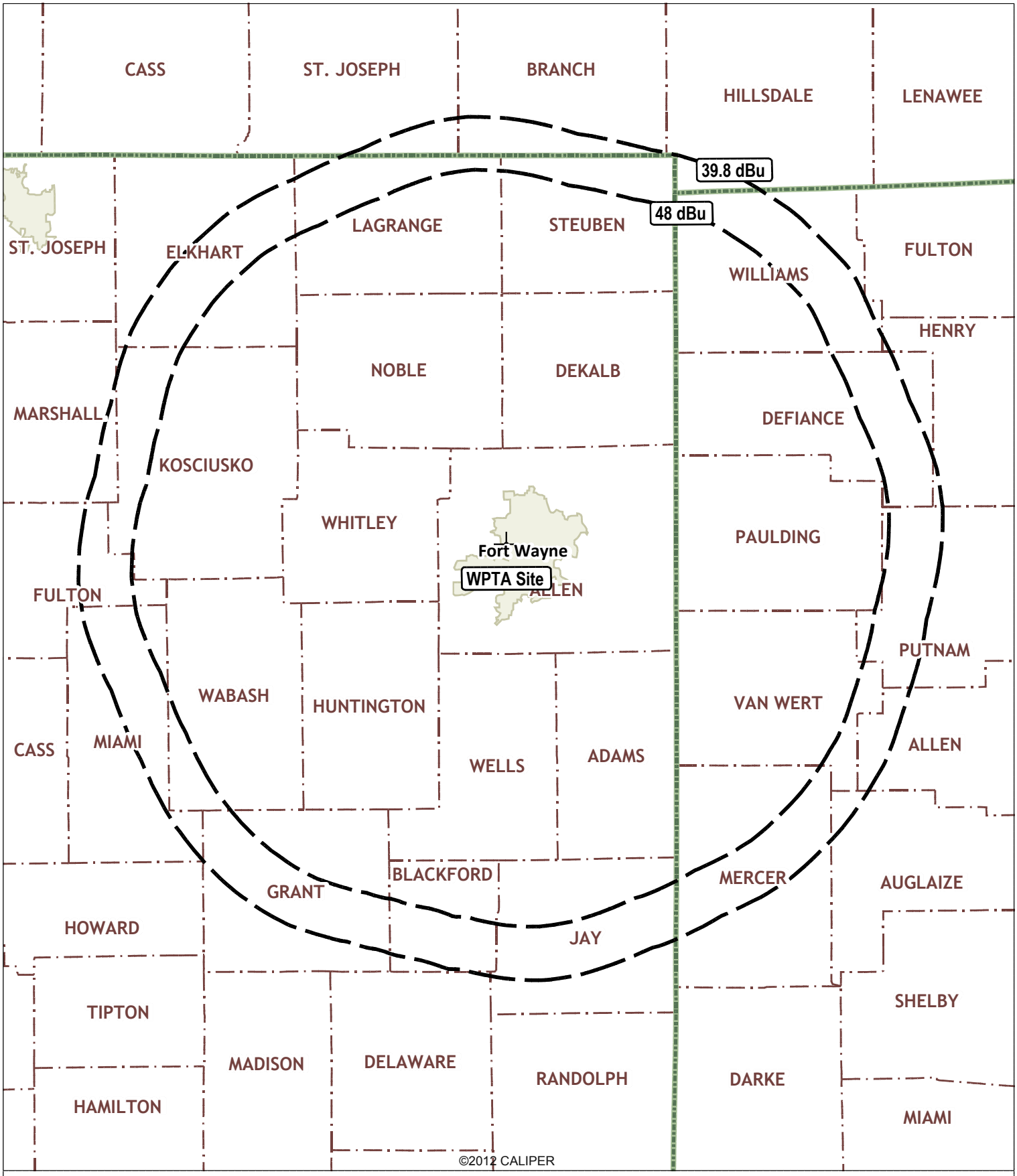
Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 273.0 degrees Distance: 1690.2 km

Study cell size: 2.00 km
Profile point spacing: 0.10 km *(Higher profile resolution)*

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

No IX check failures found.



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SCALE 1:1,000,000

10 0 10 20 30 40
Kilometers

FIGURE 1
DTV SERVICE CONTOURS
WPTA 444 KW ERP 228.6M HAAT CH. 24
FORT WAYNE, INDIANA

February 2019