

**TECHNICAL STATEMENT
WPTA 575 KW-ND 224.4 M HAAT CH. 24
FORT WAYNE, INDIANA**

INTRODUCTION

WPTA License, LLC (the “Applicant”), the licensee of digital television station WPTA, Facility ID No. 73905, proposes a minor modification during the temporary lifting of the freeze by the Media Bureau to increase WPTA’s noise-limited contour beyond the station’s authorized facilities.¹ More specifically, the Applicant seeks to expand the contour through an increase in effective radiated power (ERP) to 575 kW. No other change to WPTA’s existing facility is proposed.

INTERFERENCE PROTECTION AND OET-69 ANALYSIS SETTINGS

A copy of the *TVStudy* analysis is provided in [Figure 1](#). This summary indicates no interference check failures were found and therefore the proposal is not predicted to cause new interference beyond the normal tolerance to any other post-auction full-service or Class A TV stations.² The summary further reflects that the following analysis settings were used:

Study cell size:	2.0 kilometer
Profile point spacing:	1.0 kilometer

¹ *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).

² *TVStudy* Program, Version 2.2.3.



ENVIRONMENTAL IMPACT

The construction permit application specifies an existing FCC registered tower that was constructed before March 16, 2001.³ Given that the station will continue to utilize its existing antenna, the criteria outlined in 47 CFR § 1.1307(a) for certain types of facilities that may significantly affect the environment do not apply. With regard to the rules for limiting human exposure to radio-frequency (RF) energy in 47 CFR § 1.1307(b), this application seeks authority to operate a television broadcast antenna in full compliance with those guidelines as described in more detail below. The following technical specifications are proposed:

Frequency:	530 - 539 MHz (UHF Channel 24)
Effective Radiated Power:	575 kW
Antenna Type:	DIE TUA-O4-10/40H-1-T-R
Antenna Polarization:	Horizontal
Antenna Height:	227.1 meters above ground level (AGL)
Location coordinates:	41-06-08.0 N, 85-11-05.0 W (NAD83)
Site elevation:	242.9 meters above mean sea level (AMSL)
Overall tower height:	235.0 meters AGL
FCC ASRN:	1029441; Constructed in 1957

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 WPTA's facilities is calculated to produce a maximum power density of 3.79 $\mu\text{W}/\text{cm}^2$ 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,

³ 47 CFR Part 1, App. B, § III.A. "An antenna may be mounted on an existing tower constructed on or before March 16, 2001 without such collocation being reviewed through the Section 106 process set forth in the NPA, unless: 1. The mounting of the antenna will result in a substantial increase in the size of the tower as defined in Stipulation I.E, above; or, 2. The tower has been determined by the FCC to have an adverse effect on one or more historic properties, where such effect has not been avoided or mitigated through a conditional no adverse effect determination, a Memorandum of Agreement, a programmatic agreement, or a finding of compliance with Section 106 and the NPA; or, 3. The tower is the subject of a pending environmental review or related proceeding before the FCC involving compliance with Section 106 of the National Historic Preservation Act; or, 4. The collocation licensee or the owner of the tower has received written or electronic notification that the FCC is in receipt of a complaint from a member of the public, an Indian Tribe, a SHPO or the Council, that the collocation has an adverse effect on one or more historic properties."



are 353 $\mu\text{W}/\text{cm}^2$ and 1,767 $\mu\text{W}/\text{cm}^2$ 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. Accordingly, this application complies with the RF exposure limits and is categorically excluded from environmental processing by 47 CFR § 1.1306.

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,

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Attachment
Figure 1 – TVStudy Results

FIGURE 1
Analysis Summary
TVSTUDY, VERSION 2.2.3.

Study created: 2017. 11. 28 08:55:35

Study build station data: LMS TV 2017-11-28 (87)

Proposal: WPTA D24 DT APP FORT WAYNE, IN
Facility ID: 73905
Station data: User record
Record ID: 374
Country: U.S.
Zone: 1

Search options:

Non-U.S. records included

Stations affected by proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
WFLD	D24	DT	APP	CHICAGO, IL	BLANK0000034486	221.6 km
WFLD	D24	DT	CP	CHICAGO, IL	BLANK0000027828	221.6
WFLD	D24	DT	BL	CHICAGO, IL	DTVBL22211	221.6
WKON	D24	DT	CP	OWENTON, KY	BLANK0000025317	288.2
WKON	D24	DT	APP	OWENTON, KY	BLANK0000034637	288.2
WKON	D24	DT	BL	OWENTON, KY	DTVBL34211	288.2
WPXD-TV	D24	DT	CP	ANN ARBOR, MI	BLANK0000027025	218.3
WPXD-TV	D24	DT	APP	ANN ARBOR, MI	BLANK0000034355	218.3
WPXD-TV	D24	DT	BL	ANN ARBOR, MI	DTVBL5800	218.3
WTLJ	D24	DT	LIC	MUSKEGON, MI	BLANK0000001674	214.5
WEAO	D24	DT	CP	AKRON, OH	BLANK0000026421	297.5
WEAO	D24	DT	APP	AKRON, OH	BLANK0000034293	297.5
WEAO	D24	DT	BL	AKRON, OH	DTVBL49421	297.4
WDEW-CD	D24	DC	CP	COLUMBUS, OH	BLANK0000028258	221.4
WDEW-CD	D24	DC	APP	COLUMBUS, OH	BLANK0000034853	221.4
WDEW-CD	D24	DC	BL	COLUMBUS, OH	DTVBL54414	221.4
WRTV	D25	DT	LIC	INDIANAPOLIS, IN	BLCDT20090623AGJ	158.9

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 8.00 N (NAD83)
Longitude: 85 11 5.00 W
Height AMSL: 470.0 m
HAAT: 224.4 m
Peak ERP: 575 kW
Antenna: Omnidirectional
Elev Pattn: Generic

Elec Tilt: 0.50

39.8 dBu contour :
Azimuth ERP HAAT Distance
0.0 deg 575 kW 211.2 m 82.6 km
45.0 575 223.4 83.6
90.0 575 233.1 84.5
135.0 575 228.7 84.1
180.0 575 232.4 84.5
225.0 575 225.0 83.8
270.0 575 211.5 82.6
315.0 575 210.9 82.5

Database HAAT does not agree with computed HAAT
Database HAAT: 224 m Computed HAAT: 222 m

**Proposal service area extends beyond baseline plus 1.0%
Proposal service area population is more than 95.0% of baseline

**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: 339.4 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: 1690.1 km

Study cell size: 2.00 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%

No IX check failures found.