

LICENSE TO COVER MODIFICATION OF CONSTRUCTION PERMITTED TECHNICAL PARAMETERS

1.0 ANTENNA MODEL MODIFICATION

The WEAO-TV Construction Permit¹ (“CP”) specifies a Dielectric model number TFU-21JTH/VP-R O4 antenna. The applicant has substituted the specified model with a Dielectric TFU-20ETT/VP-R O4 antenna. Both antennas are omnidirectional and have an electrical beam tilt of 0.50 degrees. The antenna substitution does not change the relative field azimuth pattern or the electrical beam tilt and is thus compliant with Section 73.1690(c)(1) which allows the replacement of an omnidirectional antenna with one of the same or different number of antenna bays in a license to cover application.

2.0 ANTENNA EFFECTIVE CENTER OF RADIATION MODIFICATION

The WEAO-TV CP specifies an effective center of radiation height of 272.1m AGL. The substituted antenna mentioned in Section 1.0 was installed such that the effective center of radiation is 273.0m AGL which is an increase of height by 0.9m. The modified height is well within the 2 meters above or 4 meters below aperture specified in Section 73.1690(c)(1) for a license to cover modification. Appendix A is a TVStudy analysis demonstrating that the 0.9m increase in height is not predicted to cause prohibited interference and is thus fully compliant.

¹ FCC File Number 0000075952

3.0 CERTIFICATION

I, Ryan Wilhour, am an engineering associate of Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida and have been working in the field of radio and television broadcast consulting since 1996. I am a graduate of the University of Florida with a Bachelor of Science degree in electrical engineering. The foregoing statement and the report regarding the aforementioned engineering work are true and correct to the best of my knowledge.

Ryan Wilhour



Consulting Engineer

January 3, 2020

Appendix A - TVStudy Analysis

Study created: 2020.01.02 14:32:24

Study build station data: LMS TV 2019-12-17

Proposal: WEAO D24 DT CP AKRON, OH
File number: BLANK0000075952
Facility ID: 49421
Station data: User record
Record ID: 4591
Country: U.S.
Zone: I

Search options:
Non-U.S. records included
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WWHO	D23	DT	CP	CHILLICOTHE, OH	BLANK0000034759	173.1 km
No	WNWO-TV	D23	DT	CP	TOLEDO, OH	BLANK0000033631	157.7
Yes	WPXI	D23	DT	LIC	PITTSBURGH, PA	BLANK0000080213	153.5
No	WPTA	D24	DT	LIC	FORT WAYNE, IN	BLANK0000068624	297.4
No	WKON	D24	DT	LIC	OWENTON, KY	BLANK0000087440	392.9
Yes	WPXD-TV	D24	DT	CP	ANN ARBOR, MI	BLANK0000034355	208.8
No	WTLJ	D24	DT	LIC	MUSKEGON, MI	BLANK0000001674	409.3
Yes	WPXJ-TV	D24	DT	LIC	BATAVIA, NY	BLANK0000080169	323.5
Yes	WDEM-CD	D24	DC	LIC	COLUMBUS, OH	BLANK0000071611	173.1
Yes	WTAJ-TV	D24	DT	LIC	ALTOONA, PA	BLANK0000079898	274.5
Yes	WVAH-TV	D24	DT	LIC	CHARLESTON, WV	BLANK0000087458	298.2
No	WXYZ-TV	D25	DT	CP	DETROIT, MI	BLANK0000034678	204.3
No	WXCB-CD	D25	DC	LIC	DELAWARE, OH	BLANK0000087098	136.2
Yes	KDKA-TV	D25	DT	LIC	PITTSBURGH, PA	BLCDT20041004ACS	150.8
No	CIII-DT	D23	DT	LIC	PARIS, ON	BLANKCANADA209	261.2

No non-directional AM stations found within 0.8 km

Directional AM stations within 3.2 km:
WHLO 640 L DA2 D AKRON, OH BL19850731AI
WHLO 640 L DA2 N AKRON, OH BL19850731AI

Record parameters as studied:

Channel: D24
Latitude: 41 4 58.50 N (NAD83)
Longitude: 81 38 1.60 W
Height AMSL: 614.4 m
HAAT: 294.6 m
Peak ERP: 191 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 0.50

39.8 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	191 kW	288.7 m	83.2 km
45.0	191	318.1	86.9
90.0	191	300.7	84.8
135.0	191	308.6	85.7
180.0	191	297.7	84.4
225.0	191	274.8	81.5
270.0	191	285.4	82.8
315.0	191	282.7	82.4

**Proposal is within coordination distance of Canadian border
Distance to Canadian border: 91.7 km

WEAO-TV – License to Cover for a Construction Permitted Broadcast Television Station
Akron, OH

Distance to Mexican border: 2174.0 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 296.7 degrees Distance: 395.8 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 274.8 degrees Distance: 1987.0 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%

---- Below is IX received by proposal BLANK0000075952 ----

Proposal receives 3.23% interference from scenario 1
No IX check failures found.