

**ENGINEERING TECHNICAL STATEMENT IN SUPPORT OF A
LICENSE TO COVER APPLICATION FOR WSRE-TV
FACILITY ID 17611
FCC FILE No.: 0000027900**

1.0 LICENSE TO COVER WITH AN ALTERNATE ANTENNA MODEL

In preparation of the license to cover for FCC File No. 0000027900, it was discovered that the antenna installed¹ has a slightly different model number than the authorized antenna². In addition to the different model number, the installed antenna has an electrical beam tilt of 1.0 degrees and is elliptically polarized whereas the permitted antenna has an electrical beam tilt of 0.75 degrees and is horizontally polarized. The azimuth pattern for the antennas are identical for every radial azimuth. Relative to the construction permit, no other changes are proposed.

The FCC license to cover application allows the beam tilt and antenna model to be changed but the polarity is held at a constant that can't be changed. It is respectfully requested that after the submittal of the application, the FCC staff change the polarity from Horizontal to Elliptical.

¹ ERI ATW17H4-ETC5-24H

² ERI ATW17H3-HTC5-24H

2.0 TVSTUDY ALLOCATION ANALYSIS

Appendix A are the summarized results from TVStudy V2.2.5 demonstrating that changing the electrical beam tilt from 0.75 to 1.00 degrees shall not cause any prohibited interference.

3.0 RADIO FREQUENCY RADIATION COMPLIANCE

A theoretical analysis has been conducted of the human exposure to radio frequency radiation (“RFR”) using the calculation methodology described in OET Bulletin 65, Edition 97-01. The RFR analysis is conducted pursuant to the following methodology:

Terrain extraction is compiled from the proposed tower site to radial lengths of 0.25 miles in 0.001 mile increments for 360 radials. The power density is calculated for each terrain point at 6 feet above ground level using the elevation and azimuth pattern of the proposed broadcast antenna. The power density calculations are conducted using the lower edge of the proposed channel frequency. To account for ground reflections, a coefficient of 1.6 was included in the calculation.

The resulting cylindrical polar analysis is then summarized into a coordinate plane graph using the following methodology:

Starting from the origin the maximum calculated RFR value is determined among the 360 degree radials for each 0.001 mile increment, the value is then converted into a percentage of the maximum allowable general population or

uncontrolled exposure and plotted as a function of perpendicular distance from the tower.

The resulting RFR study in Appendix B demonstrates that the peak exposure is 0.215% of the most restrictive permissible exposure threshold. Pursuant to OET Bulletin 65 concerning multiple-user transmitter sites only those licensees whose transmitters produce power density levels greater than 5.0% of the exposure limit are considered significant contributors to RFR. Since the proposed operation is within 5% of the most permissible exposure at any location 2 meters above the ground, it is not considered a significant contributor to RFR exposure. Thus, contributions to exposure from other RF sources near the proposed facility were not taken into account. The instant application is compliant with the FCC limits for human exposure to RF radiation and is excluded from further environmental processing since no changes are proposed to the tower structure in order to accommodate the proposed antenna.

A chain link fence encloses the support structure and the applicant will cooperate with any other users of the tower by reducing the power to the antenna or if necessary, completely cutting it off to protect maintenance workers on the tower.

4.0 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

November 19, 2019

APPENDIX A – TVStudy V2.2.5 Analysis

Study created: 2019.11.19 13:20:27
Study build station data: LMS TV 2019-11-19
Proposal: WSRE D24 DT CP PENSACOLA, FL
File number: BLANK0000027900
Facility ID: 17611
Station data: User record
Record ID: 4338
Country: U.S.
Zone: III

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
Yes	WDPM-DT	D23	DT	LIC	MOBILE, AL	BLCDT20090420AAD	0.0 km
No	WLAE-TV	D23	DT	LIC	NEW ORLEANS, LA	BLANK0000087542	235.7
No	WBXA-CD	D24	DC	LIC	BIRMINGHAM, AL	BLANK0000001638	328.1
No	WBXA-CD	D24	DC	CP	BIRMINGHAM, AL	BLANK0000035776	328.1
No	WHIQ	D24	DT	LIC	HUNTSVILLE, AL	BLANK0000004828	469.5
Yes	WTLF	D24	DT	APP	TALLAHASSEE, FL	BLANK0000035775	347.7
No	WTLF	D24	DT	LIC	TALLAHASSEE, FL	BLCDT20030303ABF	305.6
Yes	WXTX	D24	DT	LIC	COLUMBUS, GA	BLANK0000064021	330.3
No	WGBB-TV	D24	DT	CP	BATON ROUGE, LA	BLANK0000027707	352.9
No	W24EP-D	D24	DC	LIC	FULTON, MS	BLANK0000063965	388.0
Yes	WMDN	D24	DT	APP	MERIDIAN, MS	BLANK0000035927	216.7
Yes	WMDN	D24	DT	LIC	MERIDIAN, MS	BLCDT20090304ADW	216.7
Yes	WAKA	D25	DT	LIC	SELMA, AL	BLANK0000081489	188.2
Yes	WAWD	D25	DT	CP	FORT WALTON BEACH, FL	BLANK0000034185	73.1
Yes	WAWD	D25	DT	LIC	FORT WALTON BEACH, FL	BLANK0000088510	73.1
Yes	WXXV-TV	D25	DT	CP	GULFPORT, MS	BLANK0000087754	139.5
Yes	WXXV-TV	D25	DT	APP	GULFPORT, MS	BLANK0000090276	139.5

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D24
Latitude: 30 36 41.00 N (NAD83)
Longitude: 87 36 26.40 W
Height AMSL: 587.9 m
HAAT: 551.6 m
Peak ERP: 859 kW
Antenna: Electronics Research, Inc ATW17H4-ETC5-2 (ID 1001726) 0.0 deg
Elev Pattern: Generic
Elec Tilt: 1.00

39.8 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	112 kW	541.3 m	100.0 km
45.0	397	550.6	111.9
90.0	859	557.0	119.4
135.0	397	562.1	112.6
180.0	112	556.5	101.0
225.0	27.2	548.2	88.6
270.0	98.7	541.5	98.9
315.0	27.2	555.7	89.1

ERP exceeds maximum

ERP: 859 kW ERP maximum: 397 kW

Distance to Canadian border: 1306.4 km

Distance to Mexican border: 1046.8 km

Conditions at FCC monitoring station: Powder Springs GA

Bearing: 36.1 degrees Distance: 451.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 308.4 degrees Distance: 1909.2 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.

APPENDIX B – Far Field Exposure to RF Emissions

