

**TECHNICAL STATEMENT
IN SUPPORT OF A REQUEST FOR
SPECIAL TEMPORARY AUTHORIZATION
WJMY-CD 1.66 KW-DA 287 M RCAMSL CH. 25
DEMOPOLIS, ALABAMA**

INTRODUCTION

TTI, Inc. (the “Applicant”), the licensee of digital Class A television station WJMY-CD Channel 25, Facility ID No. 30283, requests special temporary authorization (STA) to operate WJMY-CD on Channel 25 using an interim antenna facility with parameters at variance from those specified in the station’s license.¹ WJMY-CD is currently scheduled to transition to Channel 17 in Phase 5 utilizing a new antenna structure, but due to tower construction delays beyond the Applicant’s control, the station needs to operate temporarily on Channel 25 beyond the Phase 5 construction deadline.² The technical operating parameters for the proposed STA facility are described in greater detail below.

INTERIM ANTENNA AND OPERATING PARAMETERS

The proposed STA will enable WJMY-CD to temporarily continue operation on Channel 25 at reduced power using a different antenna system, which will help facilitate the station’s transition to Channel 17 during the next construction phase without any significant disruption in service to the public.³ The temporary antenna to be employed is a directional ERI Model ALP8L1-HSOC with no electrical beam tilt. This antenna is horizontally polarized and the maximum ERP will be 1.66 kW. The height of the antenna radiation center will be 152 meters above ground level (AGL) or 287 meters above mean sea level (AMSL). Because the technical parameters proposed for the interim facility are less than those specified in the pre-auction station license, no extension of the authorized coverage area will result in any direction.⁴

¹ FCC File No. 0000001389 authorizes a nondirectional ERP of 15 kW at an antenna radiation center height above mean sea level (AMSL) of 339 meters. The licensed site coordinates are 33-03-15.0 N, 87-32-57.0 W (Antenna Structure Registration Number 1036764).

² The completion date for Phase 5 of the Post-Incentive Auction Transition is extended to September 11, 2019 because of Hurricane Dorian (Public Notice DA 19-866, rel. Sept. 3, 2019).

³ The Applicant has concurrently filed a Legal STA application to request a construction phase change, which will automatically extend the post-auction construction permit to October 18, 2019.



The *TVStudy* summary report provided in Figure 1 indicates that no interference check failures were found. More specifically, the study found no cases of temporary pairwise (station-to-station) interference caused to other stations in excess of two percent.⁵ This analysis was conducted using a terrain profile point spacing of 0.2 km, which is a higher resolution setting than the standard. The summary confirms that the following analysis settings were used:

Study cell size: 1.0 kilometer
Profile point spacing: 0.2 kilometer

ENVIRONMENTAL IMPACT

The criteria outlined in 47 CFR § 1.1307(a) for certain types of facilities that may significantly affect the environment do not apply because this request to operate WJMY-CD at reduced power using a temporary antenna system does not result in a facility that will exceed the rules in 47 CFR § 1.1307(b) concerning human exposure to radio-frequency (RF) energy. A showing of compliance with the RF exposure guidelines is provided below.

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 new facility is calculated to produce a maximum power density of 2.46 $\mu\text{W}/\text{cm}^2$ at points 2 meters above ground (approximate human head height). This worst case exposure level was determined based on the following operating parameters and assuming an antenna relative field value of 1.0 in all directions.

Frequency :	536 - 542 MHz (UHF Channel 25)
Effective radiated power:	1.66 kW (H)
Antenna type:	ERI ALP8L1-HSOC
Antenna polarization:	Horizontal
Antenna height:	152.0 meters AGL
Location coordinates:	33-03-15.0 N, 87-32-57.0 (NAD83)
Site elevation:	287.0 meters AMSL
Overall tower height:	257.0 meters AGL (ASRN 1036764)

⁵ See Transition Scheduling Plan Adoption Public Notice (DA 17-107, rel. Jan. 27, 2017). “A station cannot cause more than two percent new interference to another station during the transition.”



The maximum permissible exposure (MPE) guidelines applicable to Channel 25, as determined in accordance with 47 CFR § 1.1310 for uncontrolled and controlled situations, are 357 $\mu\text{W}/\text{cm}^2$ and 1,787 $\mu\text{W}/\text{cm}^2$ respectively. Because the worst-case exposure level is not more than 5% of those guidelines, no further showing of compliance is necessary. Therefore, this application complies with the RF exposure limits and is categorically excluded from environmental processing by 47 CFR § 1.1306.

Preventative steps to limit exposure to persons authorized to access the transmitter site will be consistent with the appropriate recommendations in OET-65. Such steps shall include reducing power or shutting down the facility. In addition, WJMY-CD will coordinate all maintenance and other related work to be performed at elevations above ground level with other site users. The Applicant will also ensure that suitable signs are posted to establish awareness of the potential for exposure.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Scott Turpie', is written over a horizontal line.

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September 3, 2019

Attachments:
Figure 1 – Summary of TV Study Results

Study created: 2019.09.03 15:52:17

Study build station data: LMS TV 2019-09-03

Proposal: WJMY-CD D25 DC STA DEMOPOLIS, AL
 File number: WJMY-CD25 STA 1.66kW-DA
 Facility ID: 30283
 Station data: User record
 Record ID: 562
 Country: U.S.

Build options:
 Protect pre-transition records not on baseline channel
 Protect LPTV records from Class A

Search options:
 Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WBXA-CD	D24	DC	LIC	BIRMINGHAM, AL	BLANK000001638	83.9 km
No	WBXA-CD	D24	DC	CP	BIRMINGHAM, AL	BLANK0000035776	83.9
No	WHIQ	D24	DT	LIC	HUNTSVILLE, AL	BLANK0000004828	209.4
No	K24NV-D	D24	LD	CP	MONTGOMERY, AL	BNPDTL20090825ANN	140.3
No	WSRE	D24	DT	CP	PENSACOLA, FL	BLANK0000027900	271.6
No	WXTX	D24	DT	LIC	COLUMBUS, GA	BLANK0000064021	258.2
No	W24EP-D	D24	DC	LIC	FULTON, MS	BLANK0000063965	129.6
No	WMDN	D24	DT	APP	MERIDIAN, MS	BLANK0000035927	134.0
No	WMDN	D24	DT	LIC	MERIDIAN, MS	BLCDT20090304ADW	134.0
No	WKNI-LP	N25-	TX	LIC	ANDALUSIA, AL	BLTTL20050131AAD	211.6
No	WFNA	D25	DT	LIC	GULF SHORES, AL	BLCDT20100614AQJ	264.0
Yes	W16CM-D	D25	LD	CP	JASPER, AL	BLANK0000052934	90.7
No	NEW	D25	LD	APP	MONTGOMERY, AL	BNPDTL20090825BZR	148.6
Yes	WAKA	D25	DT	CP	SELMA, AL	BLANK0000034432	123.8
No	W25EA-D	D25	LD	CP	CHIPLEY, FL	BNPDTL20090825AWD	317.7
No	WAWD	D25	DT	CP	FORT WALTON BEACH, FL	BLANK0000034185	296.1
No	W16CX-D	D25	LD	CP	PANAMA CITY, FL	BLANK0000054044	363.0
No	W25ED-D	D25	LD	CP	ALBANY, GA	BLANK0000012039	367.7
No	WATL	D25	DT	LIC	ATLANTA, GA	BLCDT20020716AAH	309.3
No	W25EG-D	D25	LD	LIC	COLUMBUS, GA	BLDTL20121226AAY	248.9
No	W25EM-D	D25	LD	CP	COLUMBUS, GA	BNPDTL20090825AXS	270.5
No	W25EQ-D	D25	LD	CP	MACON, GA	BNPDTL20100427ABT	373.8
No	WLBP-TV	D25	DT	APP	BATON ROUGE, LA	BLANK0000035855	456.3
No	WLBP-TV	D25	DT	LIC	BATON ROUGE, LA	BLEDT20101201ALR	456.3
No	W25AD	N25z	TX	LIC	COLUMBUS, MS	BLTT20031126AOT	96.3
No	W25AD	D25	LD	CP	COLUMBUS, MS	BMPDTL20120206AAI	135.2
Yes	WMAO-TV	D25	DT	LIC	GREENWOOD, MS	BLEDT20090612AAI	280.6
No	WXXV-TV	D25	DT	CP	GULFPORT, MS	BLANK0000026624	293.3
No	WYHB-CD	D25	DC	CP	CHATTANOOGA, TN	BLANK0000080388	317.9
No	WPDP-CD	D25-	DC	LIC	CLEVELAND, TN	BLANK0000004528	355.0
No	WJFB	D25	DT	CP	LEBANON, TN	BLANK0000034895	360.7
No	WATN-TV	D25	DT	LIC	MEMPHIS, TN	BLCDT20050628AAP	320.9
No	WTVF	D25	DT	LIC	NASHVILLE, TN	BLCDT20120913AAW	363.9
Yes	WTJP-TV	D26	DT	LIC	GADSDEN, AL	BLCDT20110304ACB	132.5
No	W26FE-D	D26	LD	CP	MONTGOMERY, AL	BLANK0000071996	144.3
Yes	W26FC-D	D26	LD	CP	TUSCALOOSA, AL	BLANK0000071985	54.1
No	W26FF-D	D26	LD	CP	TUPELO, MS	BLANK0000071787	171.7

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: Stringent
 Latitude: 33 3 15.00 N (NAD83)
 Longitude: 87 32 57.00 W
 Height AMSL: 287.0 m
 HAAT: 0.0 m
 Peak ERP: 1.66 kw
 Antenna: ERI ALP8L1-HSOC 0.0 deg
 Elev Pattn: Generic

49.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	1.66 kw	219.0 m	40.9 km
45.0	1.32	185.7	37.8
90.0	0.741	210.8	36.2
135.0	0.629	188.8	34.1
180.0	0.759	186.9	34.9
225.0	0.629	233.2	36.5
270.0	0.741	242.1	37.8
315.0	1.32	247.4	41.2

Database HAAT does not agree with computed HAAT
 Database HAAT: 0 m Computed HAAT: 214 m

Distance to Canadian border: 1050.0 km

Distance to Mexican border: 1199.5 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 70.3 degrees Distance: 277.0 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 301.6 degrees Distance: 1757.8 km

Study cell size: 1.00 km
Profile point spacing: 0.20 km

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

---- Below is IX received by proposal WJMY-CD25 STA 1.66KW-D ----

Proposal receives 2.26% interference from scenario 1
No IX check failures found.