

Technical Report WRGM(AM) New Translator

This technical report is submitted for the long form application for a new fill-in translator at channel 294, FCC file no. BNPFT-20170801ADG, to serve as a fill-in to rebroadcast the primary WRGM(AM) 1440 kHz facility at Ontario, OH, FCC facility ID 25476.

New 294D Translator Analysis:

An overlap study in exhibit E-1 shows the new 294D translator is within the third-adjacent, co-located WVNO-FM 291B protected contour. As a result, the +40 dBu F(50-10) interfering contour is zero and does not produce any interference overlap. The 60 dBu F(50-50) contour is contained within a 25 mile/40 km radius from the WRGM(AM) daytime tower site, and the 34 dBu F(50-10) contour does not cross the Canadian border (exhibit E-2).

Antenna System:

The new 227D translator is to be located on the existing tower, ASR 1013230, at coordinates:

40 45 50N 82 37 04W NAD 27

A PSI FML single bay, nondirectional antenna will be mounted at a COR AGL of 116 meters, 537 meters AMSL and operate at 0.250 kW ERP.

RF Exposure Calculation:

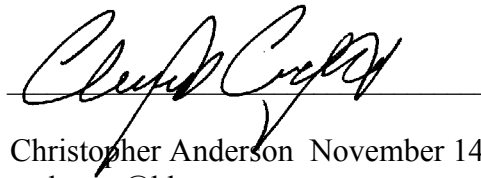
The RF contribution was calculated using the formula from the OET Bulletin 65:

$$S \text{ (RF in microwatts/cm}^2\text{)} = \frac{33.4 \times F^2 \times (H \text{ ERP} + V \text{ ERP in watts})}{R^2 \text{ (height of radiation center in meters -2m)}}$$

Using a worst-case vertical (F) factor of 1.000, the RF is calculated to be $1.29 \mu\text{W}/\text{cm}^2$ to the ground, which is well below 5% of the $200 \mu\text{W}/\text{cm}^2$ maximum permissible for controlled exposure, allowing exclusion from consideration.

Conclusion:

It is concluded that the application for a new 294D translator facility for WRGM(AM) complies with all Commission rules and policies.

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

Christopher Anderson November 14, 2017
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E-1 WRGM(AM) New 294D Overlap Study

REFERENCE 40 45 50.0 N. 82 37 04.0 W.		CH# 294D - 106.7 MHz, Pwr= 0.25 kW, HAAT= 157.0 M, COR= 537 M Average Protected F(50-50)= 16.35 km Omni -di rectional							DISPLAY DATES DATA 11-14-17 SEARCH 11-14-17		
CH CITY	CALL	TYPE ANT STATE	AZI ---	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*	
294D Mansfi eld	1760812	APP _C_ OH	0.0 0.0	0.00 BNPFT20170801ADG	40 45 50.0 82 37 04.0	0.250 537	55.4	17.5 Gsm Medi a Corporation	-72.9*	-72.9*	
291B Mansfi eld	WVNO-FM	LIC _CN OH	0.0 0.0	0.00 BLH19911030KB	40 45 50.0 82 37 04.0	40.000 166	6.2 545	66.9 Johnny Appl eseed Broadcast	-23.7*	-68.8*(1)	
294B1 Dubl in	AL6931	RSV-A _ OH	199.7 19.6	71.81 RM10557	40 09 20.0 82 54 12.0	25.000 100	113.6 385	43.7	-55.7*	-29.3(2)	
294A Dubl in	WZCB	LIC _CX OH	202.4 22.2	89.72 BLH20121004AAP	40 01 01.8 83 01 11.3	3.000 144	79.8 392	26.5 Citi casters Li censes, Inc.	-4.6	14.3	
293B Cl evel and	WHLK	LIC _CN OH	47.4 228.0	101.69 BLH19911002KE	41 22 45.0 81 43 12.0	11.500 316	75.1 580	64.1 Citi casters Li censes, Inc.	9.5	1.8	
297B El yria	WNWV	LIC _CX OH	42.3 222.7	76.19 BLH20041102AEC	41 16 10.0 82 00 16.0	20.000 238	5.8 493	65.4 Rubber Ci ty Radi o Group, I	53.3	8.9	
295B Canton	WRQK-FM	LIC _CX OH	85.9 266.6	100.37 BLH20070209ABX	40 49 22.0 81 25 40.0	27.500 103	63.9 436	53.6 Capstar Tx, LI c	20.6	12.6	
294B Detroi t	WDTW-FM	LIC _CN MI	348.6 168.3	177.92 BMLH19890804KA	42 19 55.0 83 02 42.0	61.000 155	143.3 338	68.1 Amfm Radi o Li censes, L. I. c	16.9	36.6	
240A Cal edoni a	WYNT	LIC _CX OH	254.6 74.4	34.16 BLH20060829BGI	40 40 55.0 83 00 27.0	4.600 114	128.8 410	52.5 Cc Li censes, LI c	9.5R	24.7M	

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= East Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
***affixed to 'IN' or 'OUT' values = site inside restricted contour.
Reference station has protected zone issue: Canada- AM tower

- (1) The +40 dBu F(50-10) contour to the co-located WVNO-FM 291B third adjacent contour is zero.
- (2) The 294B1 application reservation may be ignored since the application is no longer pending.

New Tx
Latitude: 40-45-50 N
Longitude: 082-37-04 W
ERP: 0.25 kW
Channel: 294
Frequency: 106.7 MHz
AMSL Height: 537.0 m
Elevation: 421.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

New Tx. Ch. 294
34 dBu F(50-10) Contour

New Tx. Ch. 294
60 dBu F(50-50) Contour

WRGM(AM) 1440 kHz
25 Mile/40 Km Radius Circle

Scale 1:1,250,000
0 10 20 30 km

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E-3 WRGM(AM) New 294D Tower ASR

ASR Registration 1013230

Registration Detail

Reg Number	1013230	Status	Constructed
File Number	A0827998	Constructed	02/15/2013
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type GTOWER - Guyed Structure Used for Communication Purposes

Location (in NAD83 Coordinates)

Lat/Long	40-45-50.0 N 082-37-04.0 W	Address	2900 PARK AVE W
City, State	ONTARIO , OH		
Zip	44906	County	RICHLAND
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
420.6	143.9
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
564.5	143.9

Painting and Lighting Specifications

FAA Chapters 3, 4, 5, 9

Paint and Light in Accordance with FAA Circular Number 70/7460-1G

FAA Notification

FAA Study	2012-AGL-10203-OE	FAA Issue Date	12/10/2012
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Owner & Contact Information

FRN	0005005079	Owner Entity	Corporation
		Type	

Owner

MID STATE TELEVISION INC
Attention To: GUNTHER MEISSE
2900 PARK AVE W
MANSFIELD , OH 44906

P: (419)529-5900
F:
E: gogm@wmfd.com

Contact

FICK , WAYNE
2900 PARK AVE WEST
MANSFIELD , OH 44906

P: (419)529-5900
F:
E: waynef@wmfd.com

Last Action Status

Status	Constructed	Received	02/15/2013
Purpose	Notification	Entered	02/15/2013