

Technical Report W294CK.CP Minor Modification

This technical report is submitted for a minor modification to W294CK.CP at Mansfield, OH, FCC file no. BNPFT-20171201AIS. Changes in antenna and COR are submitted. The translator will continue to serve as a fill-in facility to rebroadcast WRGM(AM) 1440 kHz at Ontario, OH, FCC facility I.D. no. 25476.

W294CK.CP Modification Analysis:

An overlap study in exhibit E-1 shows the W294CK.CP modification is within the co-located WVNO-FM 291B third-adjacent protected contour. As a result, the +40 F(50-10) dBu contour is zero. The 294B1 allocation at Dublin, OH does not require protection from translators. The modified 60 dBu contour overlaps the current 60 dBu contour and is contained within a 25 mile/40 km radius of the primary WRGM(AM) daytime site (exhibit E-2).

Antenna System:

W294CK.CP is located on the existing tower, ASR no. 1013230, at coordinates:

40 45 50N 82 37 04W NAD 27.

A Bext TFC2K single bay, nondirectional antenna will be mounted at a COR AGL of 111 meters, 532 meters AMSL and operate at 0.250 kW ERP.

RF Exposure Calculation:

The RF contribution was calculated using FM Model (exhibit E-3). The worst-case RF is calculated to be $0.846 \mu\text{W}/\text{cm}^2$ at a distance of 30 meters from the base of the tower, which is below 5% of the $200 \mu\text{W}/\text{cm}^2$ maximum permissible for uncontrolled exposure, allowing exclusion from consideration.

Conclusion:

It is concluded that the W294CK.CP modification complies with all Commission rules and policies.



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E-1 W294CK.CP Mod. Overlap Study

REFERENCE 40 45 50.0 N. 82 37 04.0 W.		CH# 294D - 106.7 MHz, Pwr= 0.25 kW, HAAT= 152.0 M, COR= 532 M Average Protected F(50-50)= 16.02 km Omni-directional								DISPLAY DATES DATA 05-31-18 SEARCH 05-31-18	
CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
294D Mansfield	W294CK	CP OH	_C_	0.0 0.0	0.00 BNPFT20171201AIS	40 45 50.0 82 37 04.0	0.250	537	---Reference---		
291B Mansfield	WVNO-FM	LIC OH	_CN	0.0 0.0	0.00 BLH19911030KB	40 45 50.0 82 37 04.0	40.000 166	6.2 545	66.9 Johnny Appleseed Broadcast	-23.5*	-68.8*(1)
294B1 Dublin	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	-55.4*	-28.5(2)
294A Dublin	WZCB	LIC OH	_CX	202.4 22.2	89.72 BLH20121004AAP	40 01 01.8 83 01 11.3	3.000 144	79.8 392	26.5 Citicasters Licenses, Inc.	-4.3	15.0
293B Cleveland	WHLK	LIC OH	_CN	47.4 228.0	101.69 BLH19911002KE	41 22 45.0 81 43 12.0	11.500 316	75.1 580	64.1 Citicasters Licenses, Inc.	9.8	2.3
297B El yria	WNWV	LIC OH	_CX	42.3 222.7	76.19 BLH20041102AEC	41 16 10.0 82 00 16.0	20.000 238	5.8 493	65.4 Rubber City Radio Group, I	53.6	9.0
295B Canton	WRQK-FM	LIC OH	_CX	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, Lic, As Debtor	21.0	13.2
294B Detroit	WDTW-FM	LIC MI	_CN	348.6 168.3	177.92 BMLH19890804KA	42 19 55.0 83 02 42.0	61.000 155	143.3 338	68.1 Amfm Radio Licenses, L.I.c	17.1	37.3
240A Caledonia	WYNT	LIC OH	_CX	254.6 74.4	34.16 BLH20060829BGI	40 40 55.0 83 00 27.0	4.600 114	10.2 410	3.2 Cc Licenses, Lic, As Debto	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.
« = Station meets FCC minimum distance spacing for its class.
Reference station has protected zone issue: Canada- AM tower

- (1) The +40 F(50-10) dBu contour within the co-located WVNO-FM 291B third-adjacent protected contour is zero.
- (2) The 294B1 allocation does not require protection.

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W294CK.CP Mod.
BNPFT20171201AIS
Latitude: 40-45-50 N
Longitude: 082-37-04 W
ERP: 0.25 kW
Channel: 294
Frequency: 106.7 MHz
AMSL Height: 532.0 m
Elevation: 421.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None

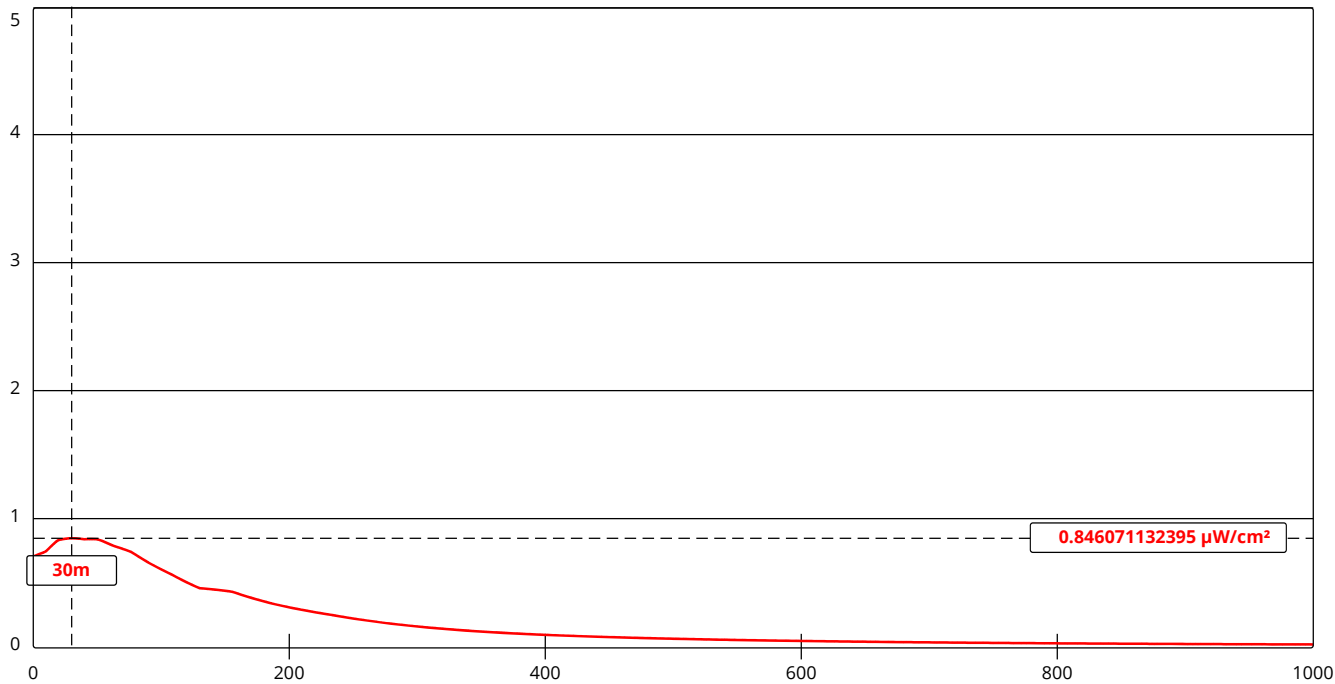
W294CK.CP
60 F(50-50) dBu Contour

W294CK.CP Mod.
60 F(50-50) dBu Contour

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

Scale 1:400,000
0 5 10 15 km

FM Model



Channel Selection	Channel 294 (106.7 MHz)		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other"		
Height (m)	111	Distance (m)	1000
ERP-H (W)	250	ERP-V (W)	250
Num of Elements	1	Element Spacing (λ)	1
Num of Points	500		

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