

ENGINEERING REPORT

FM Translator Minor Construction Permit Modification Application

for

**W232CM – Tedrow, OH
(Facility ID: 142063)**

BNPFT-20130827ADV

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(Exhibit numbering is in response to FCC Online Form 349, Section III-A)

Discussion

This firm has been retained to prepare the required engineering report in support of a Minor Change Construction Permit Modification Application (BNPFT-20130827ADV) for FM Translator W232CM - Tedrow, OH (Facility ID: 142063). This Translator proposal requests a new transmitter site location. Operation on CH232D (94.3 MHz) with 0.250 kW ERP (H&V) at 304 meters AMSL is proposed. The Fill-In Translator will rebroadcast FM Primary Station WMTR(FM) – Archbold, OH (96.1 MHz); Facility ID No. 48957. The Translator will serve the community of Archbold, OH.

The Translator will be mounted on the existing tower bearing Antenna Structure Registration Number 1038620. A copy of the existing ASR has been included in **Exhibit 13.1**. The vertical antenna system has been included in **Exhibit 13.2**. As this proposal will not increase the overall tower height, notification to the FAA is not believed required.

It has been determined the Translator may be used in the area without interference to any existing FM broadcast station or facility. General allocation details are found in **Exhibit 13.5**.

The applicant would like to note use of the NED 03 second terrain database for all allocation, contour and HAAT showings contained here-in.

The proposed 60 dB μ contour of the Fill-In Translator lies wholly inside of the FM primary 60 dB μ contour. A map of the proposed service area in relation to the primary station service contour has been included in **Exhibit 13.4**.

Regarding protection of international concerns, the facility is within 320 km of the common border between the United States and Canada. The proposed 34 dB μ F(50:10) contour will not enter the border with Canada. The proposal is more than 320 km from the common border between the United States and Mexico.

The proposed operating parameters have been changed from the present values. A map of the proposed service contour has been included in **Exhibit 13.3**.

Discussion (continued)

RADIATION PROTECTION: The Commission requires an engineering study regarding compliance with the guidelines for human protection from radiofrequency radiation. This report section is in response to that provision of the Rules. The current Federal Communications Commission guidelines for RF radiation protection are set forth in OET Bulletin No. 65 (Edition 97-01), and the accompanying Supplement A, (Edition 97-01).

The FM Broadcast facility proposed in this application will not produce human exposure to radiofrequency radiation in excess of the applicable safety standards specified in §1.1307(b)(3) of the Commission's rules concerning RF contributors of less than 5%. ***Exhibit 17.1*** provides the details of the study that was made to demonstrate compliance. The facility is properly marked with signs, and entry is restricted by means of fencing with locked doors and/or gates. Any other means as may be required to protect employees and the general public will be employed.

In the event work would be required in proximity to the antenna such that the person or persons working in the area would be potentially exposed to fields in excess of the guidelines set forth in OET Bulletin No. 65 (Edition 97-01), the transmitter power will be reduced or the station will cease operation during the critical period.

DISTANCES TO CONTOURS: The following tabulation of the distances to the proposed service contours results from calculations performed in accordance with §73.313(d) and §73.333 Figure 1.

N. Lat. = 413329 W. Lng. = 841108 HAAT and Distance to Contour, FCC, FM 2-10 Mi, 51 pts Method - NED 03 SEC						
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	234.5	69.5	0.0484	-13.15	0.440	7.11
030	237.2	66.8	0.0156	-18.06	0.250	5.32
060	232.1	71.9	0.0121	-19.17	0.220	5.18
090	225.6	78.4	0.0132	-18.79	0.230	5.52
120	218.5	85.5	0.0121	-19.17	0.220	5.65
150	216.9	87.1	0.0156	-18.06	0.250	6.06
180	221.4	82.6	0.0484	-13.15	0.440	7.76
210	228.0	76.0	0.1332	-8.75	0.730	9.70
240	222.1	81.9	0.2162	-6.65	0.930	11.30
270	221.2	82.8	0.2500	-6.02	1.000	11.76
300	223.2	80.8	0.2162	-6.65	0.930	11.23
330	224.2	79.8	0.1332	-8.75	0.730	9.93
Ave El= 225.41 M HAAT= 78.59 M AMSL= 304 M						