ENGINEERING REPORT

FM Translator Minor Construction Permit Application

for

W300CF.L - Hillsboro, OH (Facility ID: 144600)

"250 Mile Window Application" Pursuant to FCC Public Notice DA 1491 (issued 12/23/2015)

for

CH282D.P - Fort Wayne, IN

as an AM Fill-In Translator for

WLYV(AM) - Fort Wayne, IN

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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 Construction Permit Application for FM Translator W300CF.L - Hillsboro, OH (Facility ID: 144600). *This Form 349 Filing is being filed as a "250 Mile Window Application" in response to the Revitalization of the AM Radio Service, First Report and Order (MB Docket No. 13-249 (FCC 15-142), released October 23, 2015; subsequent Public Notice DA 15-1215, released October 26, 2015; and final Public Notice DA 1491, released December 23, 2015. This Form 349 is being filed under the "First Modification Window" open for AM Class C and D Fill-In Translators.* This Translator proposal requests a new (less than 250 mile) site location and new operational frequency. Operation on CH282D (104.3 MHz) with 0.250 kW ERP (H&V) at 330 meters AMSL is proposed. The Fill-In Translator will rebroadcast Class C AM Primary Station WLYV(AM) - Fort Wayne, IN (1450 kHz); Facility ID No. 42082. The Translator will serve the community of Fort Wayne, IN.

The Translator will be mounted on the existing tower bearing Antenna Structure Registration Number 1028214. 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, it is believed the FAA need not be notified.

It has been determined the Translator may be used in the area without interference to any existing FM broadcast station or facility with the exception of WWFW(FM). General allocation details are found in ***Exhibit 13.5***. The applicant would like to note the existence of a §74.1204(d) Second/Third Adjacent Channel Given Interference Waiver Request toward WWFW(FM) - Fort Wayne, IN (CH280A) as noted in ***Exhibit 13.7***. Protection has been based on the worst case calculated 130.1 dBµ F(50:10) Interference Contour, corresponding to the worst case 90.1 dBµ F(50:50) Protected Contour. Protection has been demonstrated through a downward vertical radiation study. Full protection will be afforded the facility as the interference area will not reach the ground nor a seven meter artificial plane representing a standard two story home when taking into account the downward radiation characteristics of the antenna as supplied by the antenna manufacturer. A copy of the antenna manufacturer specifications has also been included in ***Exhibit 13.8***. There is one facility, existing or proposed, close enough to merit further study. Therefore a supplemental contour protection study has been included as noted in ***Exhibit(s) 13.6***. It is believed sufficient clearance exists precluding the need for additional contour protection showings.

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 dBµ contour of the Fill-In Translator lies wholly inside of the AM primary daytime 2.0 mV/m contour and a 25 mile radius around the AM site. A map of the proposed service area in relation to the primary station service contour has been included in ***Exhibit 13.4***. In addition, this exhibit also demonstrates the physical relocation of the Translator is less than 250 miles (402.3 km) in accordance with the Commission's Policy concerning this "250 Mile Window Application".

Regarding protection of international concerns, the facility is and will remain within 320 km of the common border between the United States and Canada. The applicant certifies the proposed Translator 34 dBµ F(50:10) interference contour does not enter Canadian territory. Documentation of the proposed 34 dBµ F(50:10) interference contour will be supplied upon request.

Discussion (continued)

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***.

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. = 410557.0 W. Lng. = 850842.0
HAAT and Distance to Contour,
FCC, FM 2-10 Mi, 51 pts Method - NED 03 SEC

W245CA, , BLFT20140818AER

Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	255.7	74.3	0.2500	-6.02	1.000	11.19
030	244.2	85.8	0.2500	-6.02	1.000	11.95
060	244.6	85.4	0.2500	-6.02	1.000	11.93
090	233.3	96.7	0.2500	-6.02	1.000	12.66
120	236.1	93.9	0.2500	-6.02	1.000	12.47
150	243.3	86.7	0.2500	-6.02	1.000	12.01
180	239.9	90.1	0.2500	-6.02	1.000	12.24
210	237.4	92.6	0.2500	-6.02	1.000	12.40
240	249.4	80.6	0.2500	-6.02	1.000	11.62
270	255.9	74.1	0.2500	-6.02	1.000	11.18
300	259.2	70.8	0.2500	-6.02	1.000	10.95
330	254.9	75.1	0.2500	-6.02	1.000	11.24

Ave El= 246.15 M HAAT= 83.85 M AMSL= 330 M