

ENGINEERING STATEMENT
IN SUPPORT OF AN APPLICATION
TO CHANGE FREQUENCY AND ANTENNA SITE
W262BF, GEORGETOWN, DELAWARE
CHANNEL 265D (100.9 MHz) 0.25 KW 59 METERS AMSL

AUGUST 2019

This engineering statement and attached exhibits have been prepared on behalf of The Voice Radio, LLC (“Voice Radio”) for an application for construction permit to change frequency and antenna site of FM Translator, W262BF, Georgetown, Delaware.

FM translator, W262BF (Facility ID 151579), currently operates on FM Channel 262D (100.3 MHz) with 0.25 kW effective radiated power (ERP) and 55 meters antenna height above mean sea level (AMSL). It is proposed to change the operating frequency to FM Channel 265D (100.9 MHz) and antenna site to the auxiliary operation site of WJKI-FM, Bethany Beach, Delaware. W262BF will continue to provide fill-in FM service for AM station WJWL, Georgetown, Delaware. WJWL currently operates on 900 kHz with 1.0 kW day and 0.145 kW nighttime power using a non-directional antenna. The proposed FM Translator operation on Channel 265D would be with 0.25 kW (H+V) ERP and antenna center located at 59 meters AMSL using a directional antenna.

The attached map (Figure 1) shows the computed 1.0 mV/m (60 dBu) contours of the currently licensed and the proposed W262BF operations would overlap. Since the proposed W262BF operation would be within 3 channels of its licensed operation, it is believed the proposal would be a minor change application. In addition, as shown on the attached map, Figure 2, the 60 dBu contour of the proposed FM translator would be wholly inside the 40 km circle from the WJWL site.

The following data provides detail information concerning the proposed FM translator operation at Georgetown, Delaware:

Name of the licensee:	The Voice Radio, LLC
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Principal community to be served: DE-Georgetown
 Primary Station: WJWL(AM)
 Via: Direct off-the-air
 Channel: 265D (100.9 MHz)
 Hours of operation: Unlimited
 Antenna Coordinates (NAD-27): North latitude: 38 deg 37 min 34 sec
 West Longitude: 75 deg 14 min 02 sec
 Transmitter: Type Accepted
 Antenna type: PSI, Directional

	Horizontally Polarized Antenna	Vertically Polarized Antenna
Effective radiated power in the horizontal plane (kW):	0.25	0.25
Height of radiation center above ground (meters):	52.0	52.0
Ground elevation above mean sea level:	7.0	7.0
Height of radiation center above means sea level (meters)	59.0	59.0
Antenna structure registration number:	1065742	

Interference

The attached map (Figure 3) shows the proposed FM translator operation of W262BF on Channel 265D will comply with Section 74.1204 of the Commission’s rules with respect to any prohibited overlap of contours to any existing or proposed FM stations and translators.

Since the proposed FM translator will not be operating on Channels 201-220, Section 74.1205 is not pertinent.

Unattended Operation

W262BF would operate unattended in accordance with Section 74.124 of the Commission's rules.

Multiple Translators

The applicant does not have any interest in an FM translator or application which serves the same area and re-broadcast the same signals as the proposed FM translator.

Environmental Protection Act

Since the proposed FM translator antenna would be side-mounted on an existing tower (ASR Number 1065742), the environmental issues listed in Section 1.1307(a) are not pertinent; therefore, those issues have not been addressed.

An evaluation has been made to determine compliance with the Commission's specified standards for human exposure to RF fields as set forth in the FCC OET Bulletin No. 65 dated August 1997. For a maximum effective radiated power of 0.5 kW (H+V) and a radiation center of 52 meters above ground level, the proposed FM Translator operation would have a less than 2 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$) RF field at 2 meters above the base of the supporting structure assuming 0.5 antenna relative field in the downward direction. The Commission's guidelines for the FM band are 1,000 $\mu\text{W}/\text{cm}^2$ for the occupational/controlled and 200 $\mu\text{W}/\text{cm}^2$ for the general population/uncontrolled environment.

Therefore, members of the public and personnel working around the proposed W262BF operation would not be exposed to RF fields exceeding the Commission's guidelines. With respect to work performed on the tower, Voice Radio will establish

procedures to ensure that workers are not exposed to RF fields above the Commission's guidelines, by reducing or turning off the power, as appropriate.

W262BF Directional Antenna
Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	0.75
10.0	0.65
20.0	0.49
30.0	0.45
40.0	0.45
50.0	0.47
60.0	0.5
70.0	0.53
80.0	1.0
90.0	1.0
100.0	1.0
110.0	1.0
120.0	1.0
130.0	1.0
140.0	1.0
150.0	1.0
160.0	1.0
170.0	1.0
180.0	1.0
190.0	1.0
200.0	1.0
210.0	1.0
220.0	1.0
230.0	1.0
240.0	1.0
250.0	1.0
260.0	1.0
270.0	1.0
280.0	1.0
290.0	1.0
300.0	1.0
310.0	1.0
320.0	1.0
330.0	1.0
340.0	1.0
350.0	1.0

Rotation Angle = 0







