

ENGINEERING REPORT

Requesting a Minor
Construction Permit Application
for FM Station:

WJFP(FM) – Fort Pierce, FL
Channel 216 (91.1 MHz)
BLED-19940725KA

March, 2014

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MUNN-REESE, INC.
Broadcast Engineering Consultants
Coldwater, MI 49036

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Interference Requirements

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Spacing Requirements	(none)
Grandfathered Short-Spaced Requirements	(none)
Contour Protection Requirements	(none)
TV Channel 6 Protection Requirements	(none)

RF Radiation Study Requirement

- Exhibit 24.1 - RF Compliance Study

(Exhibit Numbering is in response to FCC Online Form 340, Section VII)

DISCUSSION OF REPORT

This firm was retained to prepare the required engineering report in support of a Minor Construction Permit Application for Non-Commercial FM station WJFP(FM) Fort Pierce, FL license BLED-19940725KA. Currently WJFP(FM) is licensed to operate with 6.0 kW at 48 meters HAAT utilizing a non-directional antenna. This minor change application requests 100.0 kW at 125 meters HAAT utilizing a directional antenna from a new site location. The facility will still serve Fort Pierce, FL. The applicant would like to note that WJFP(FM) also holds authorized Construction Permit, BPED-20101130APN, however this CP will be voluntarily surrendered and replaced by this Form 340 instant application.

The proposed site for the Class C1 operation meets all the contour protection requirements towards other stations in the allocation with the exception of WWFR(FM) - Stuart, FL. A tabulation of the proposed protections to each of the other relevant stations is found in **Exhibit 18.1**. A waiver of §73.509 is requested for received third adjacent contour overlap with WWFR(FM). A waiver request documenting the received contour overlap to be *de minimis* in nature has been included in **Exhibit 18.4**. There is one (1) other facility, WKES(FM) - Lakeland, FL which is deemed close enough to require further §73.509 study. An FMCommander™ map of the relevant protected and interference contours towards WKES(FM) has been supplied as **Exhibit 18.2**. It is believed there is sufficient clearance to preclude the need for further study with respect to the other protected stations shown in the allocation study.

The transmitter site is not located within 320 km of the common border between the United States and Canada or Mexico, therefore international concurrence need not be sought. The transmitter site proposed in this application is not located within the affected radius of any Channel 6 television station, therefore no further TV-6 showings are believed necessary.

The proposed service contours have been calculated in accordance with the Rules, and the data obtained has been tabulated and plotted in this report. The plotted contours are found as **Exhibit 16.4** of this report. This exhibit shows the overall service that is provided by the 1.0 mV/m contour of the facility. The tabulation of the distances to the respective contours shown in this discussion is based on the use of the standard eight cardinal bearings, which were also used for the computation of the HAAT. However, the plotted contours shown in **Exhibit 16.4** are based on the use of a full 360 terrain radials and the NGDC 30 Second Terrain Database.

The antenna will be mounted on the existing tower bearing Antenna Structure Registration No. 1032455. A copy of the existing ASR has been included in **Exhibit 16.1**. A vertical antenna plan depicting the placement of the antenna on the tower has been included in **Exhibit 16.2**.

DISCUSSION OF REPORT (continued)

The remainder of the information in this report and exhibit numbering is responsive to the Rules of the Commission, and provides the data for FCC Form 340.

The potential for human exposure to non-ionizing radiofrequency radiation at the proposed transmitter site has been evaluated with regards to §1.1307(b)(3) concerning the five percent (5%) contribution rule for multiple transmitter sites. **Exhibit 24.1** 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 table below shows the distances to the 1.0 mV/m contour from the proposed facility using an ERP of 100.0 kW at an HAAT of 125 meters. These distances have been calculated based on the FCC F(50-50) curves.

N. Lat. = 272607.0 W. Lng. = 802141.0						
HAAT and Distance to Contour - FCC Method - NGDC 30 SEC						
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	4.1	123.9	56.2500	17.50	0.750	49.60
045*	0.7	127.3	100.0000	20.00	1.000	55.29
090*	0.5	127.5	100.0000	20.00	1.000	55.33
135	1.0	127.0	100.0000	20.00	1.000	55.25
180	0.1	127.9	100.0000	20.00	1.000	55.38
225	3.1	124.9	56.9270	17.55	0.755	49.86
270	6.0	122.0	7.0756	8.50	0.266	32.19
315	6.0	122.0	7.5625	8.79	0.275	32.72
Ave El= 2.70 M HAAT= 125.30 M AMSL= 128						
* Denotes truncation of radial over the Atlantic Ocean in accordance with §73.313(d)(2).						