

MULLANEY ENGINEERING, INC.

4937 G - GREEN VALLEY ROAD
MONROVIA, MARYLAND 21770

APPLICATION FOR DIGITAL TELEVISION CLASS-A
MODIFICATION OF CONSTRUCTION PERMIT
FREE LIFE MINISTRIES, INC.

WHFL-CD

Facility ID: 22485

REPACK PHASE 5

DTV REASSIGNMENT CHANNEL 07 (174-180 MHZ)

HAS: MAXIMUM ERP: 1.54 KW NONDIRECTIONAL (OMNI)

REQUESTS: MAXIMUM ERP 3.0 KW (H&V) NONDIRECTIONAL (OMNI)

RC ANTENNA HEIGHTS; 155.4 M AMSL 122.2 M HAAT 134.1 M AGL
TV ZONE II

OCTOBER 2017

Engineering Statement Narrative

Free Life Ministries, Inc., (FLM) is the licensee of digital television Class-A station WHFL-CD, Channel 43, Facility ID 22485, Goldsboro, North Carolina, and has been reassigned to Channel 7 as a result of the incentive auction television channel repack assignments.

FLM proposes to modify the digital Channel 7 repack construction permit of WHFL-CD to specify a maximum Effective Radiated Power (ERP) of 3-kilowatts utilizing a omni, nondirectional antenna employing full circular polarization (3-kW in each plane, H & V). No changes in antenna heights will occur.

Technical Facility:

The proposed Channel 7 operation will employ a circular (H&V) polarized antenna to be side-mounted on the FLM tower in lieu of the previously specified antenna, and will operate with an effective radiated power (ERP) of 3.0 kW in each polarization at 122.2 meters antenna height above average terrain (HAAT) with a radiation center of the antenna at 155.4 meters above mean sea level (AMSL).

The change in ERP will result in an increase in the baseline service area of the station as noted in the table below:

	Noise Limited		Terrain Limited		Interference Free	
<u>SERVICE</u>	Area	Population	Area	Population	Area	Population
Baseline *	6141.3	360856	6141.3	360856	6129.2	359920
Proposed **	7511.2	446593	7500.3	445982	7455.6	443547
Percentage of Baseline Value	122.31%	123.76%	122.13%	123.59%	121.64%	123.23%

* Baseline values: Final Television Channel Assignment Information Related to Incentive Auction Repacking (data table)

** Proposed values: Results from FCC TV Study program Version 2.2.3

This is the existing tower site and supporting structure for FLM. The tower's FCC tower registration number (ASR) is: 1019370. Notice to the FAA is not required as no changes to the overall height of the structure will occur.

Predicted Service Contours:

Figure 1 is a map which depicts the standard predicted coverage contours from the proposal. The map includes the location and corporate boundary of Goldsboro, North Carolina, the station's principal community.

As shown in Figure 1, the proposed facility complies with §73.625(a)(1) concerning service to the community of license *as if it was a full-service station*, however no community of license service requirements exist for Class-A television stations under the lower-power television rules.

Interference Analysis:

An interference analysis to other television facilities is included herein as an attachment to the application Form 2100. No interference to other facilities ¹ is expected to occur based on the results of the interference study.

Effective Radiated Power:

The proposed 3.0 kW ERP does not exceed the maximum allowed ² for LPTV digital television stations.

¹ The application of WNCN, GOLDSBORO, NC, 0000027616 was dismissed by the Commission on August 31, 2017 and should be removed from the LMS data.

² LPTV digital television stations (including Class-A) operating on TV Channels 2 to 13 are limited to a maximum radiated power (ERP) of 3-kilowatts with no HAAT height restrictions.

AM Facilities/International Coordination:

AM Broadcast station WGBR 1150 kilohertz is located 2.1 kilometers from the site, a distance greater than 8-wavelengths distant at 1150 kHz. There are no proposed changes to the existing structure that would impact the operation of the AM station, additionally the site location is well beyond any area that require international coordination.

Environmental Considerations:

No new construction will occur at the site other than the replacement of one side-mounted antenna type with another on an existing structure (the physical size of the antennas are as close to identical as practical). The proposed construction does not trigger any event with regards to Section 106 of the National Historical Preservation Act (NHPA).

The proposal does not meet any of the criteria specified in Section 1.1307 of the FCC Rules. More specifically, the proposed facilities are not known to fall within any of the categories enumerated in Sections 1.1307(a)(1)-(7) and will not involve the use of high intensity white lights.

Furthermore, operation of the proposed facility will not involve the exposure of workers or the general public to levels of radio frequency electromagnetic fields exceeding guidelines adopted by the Federal Communications Commission. (The current FCC guidelines are based upon criteria contained in the National Council of Radiation Protection and Measurements (NCRP) Report No.86 (1986) and ANSI/IEEE C95.1-1992.)

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs are posted at the site. The applicant will coordinate exposure procedures with any co-located facilities and will reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

The proposed operation is fully in compliance with all areas of the Commission's rules and applicable international agreements.

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