

MULLANEY ENGINEERING, INC.

9049 SHADY GROVE COURT
GAITHERSBURG, MD 20877

ENGINEERING EXHIBIT EE-LIC:

**RADIO STATION WLJW-FM
GOOD NEWS MEDIA, INC.
FIFE LAKE, MICHIGAN**

Ch. 240C2 19 KW-DA 249 M HAAT

FEBRUARY 7, 2014

ENGINEERING STATEMENT IN SUPPORT OF
A LICENSE APPLICATION FOR A
NEW FM STATION
USING A DIRECTIONAL ANTENNA SYSTEM

File No. BNPH-20120525ADL - Facility ID: 190434



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NARRATIVE STATEMENT:

This engineering statement has been prepared on behalf of Good News Media, Inc., permittee of Radio Station WLJW-FM at Fife Lake, Michigan (Facility ID 190434). The purpose of this statement is to inform the Commission that construction has been completed and that the modified facility complies completely with its outstanding construction permit (BNPH-20120525ADL). In accordance with the rules governing directional antenna facilities [Section 73.1620(a)(2)] WLJW-FM is currently operating at one half (**50%**) of the authorized ERP and will continue to do so until formal full power program test authority is issued by the Staff.

In accordance with the Special Operating Conditions on the construction permit, WLJW-FM coordinated the times and locations of construction such that no worker was exposed to excessive R.F. levels and it will continue to do so in the future. The facility is in full compliance with both the “controlled” & “un-controlled / public” FCC Radiation Guidelines.

Figure 1 is a plot of the directional horizontal plane pattern for the FM antenna which has been installed by WLJW-FM. This figure shows the limitations imposed by the C.P. and as can be seen none of the C.P. limits have been exceeded. The RMS of the “**composite HV measured**” pattern is **81.3%** while the RMS of the “**composite FCC**” pattern authorized in the C.P. is **94.6%**. Thus, the “as built” pattern RMS is **85.9%** of the FCC pattern and this easily exceeds the 85% minimum specified by the rules [Section 73.1690(C)(2)(ii)].

Figure 2 is a map showing that the 70 dBu contour of the “measured” pattern covers **100%** of the city of license per Section 73.315 (policy only requires 80%).

Required Certifications

Appendix A is a statement by a qualified local engineer that the antenna has been assembled in accordance with the manufacturer's instructions. It is further stated that locked fencing & RF exposure signs are in place and no workers were exposed during construction.

Appendix B is a statement by the antenna manufacturer (ERI) in which it provides the "as built" measured horizontal and vertical patterns. That certification provides the horizontal/vertical power gains and RMS values. The composite RMS is stated to be 81.3%. The required orientation of the directional antenna is stated to be **N-321-E**. The ERI statement also describes the methods used to measure the pattern.

Appendix C is a statement from a local surveyor certifying that the antenna is oriented on a bearing of **N-321-E**. The statement by the antenna manufacturer indicates that the antenna should be pointed on N-321-E.

SUMMARY

Good News Media, Inc., permittee of Radio Station WLJW-FM herein files its license application indicating that construction has been completed and that except as noted the facility complies with its outstanding construction permit. WLJW-FM is waiting formal full power authorization of program test authority.

All facts contained herein are true of my own knowledge except where stated to be on information or belief, and as to those facts, I believe them to be true. Information concerning the technical equipment installed and compliance with special conditions was obtained directly from the licensee. No on-site inspection of the facility by Mullaney Engineering was made. I declare under penalty of perjury that the foregoing is true and correct.



John J. Mullaney, Consulting Engineer

February 7, 2014.