

ENGINEERING REPORT

**Supplemental RF Radiation Study for
Form 302-FM covering
Construction Permit File No.
BPED-20070801CWG**

**WYFG(FM) – Gaffney, SC
Channel 216C1 – 91.1 MHz**

November, 2010

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

Certification of Engineers

The firm of Munn-Reese, Inc., Broadcast Engineering Consultants, with offices at 385 Airport Drive, Coldwater, Michigan, has been retained for the purpose of preparing the technical data forming this report.

The data utilized in this report was taken from the FCC Secondary Database and data on file. While this information is believed accurate, errors or omissions in the database and file data are possible. This firm may not be held liable for damages as a result of such data errors or omissions.

The report has been prepared by properly trained electronics specialists under the direction of the undersigned whose qualifications are a matter of record before the Federal Communications Commission.

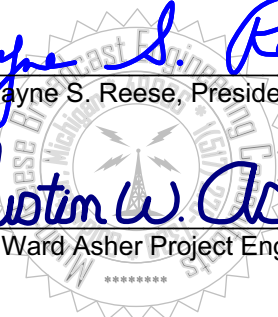
I declare under penalty of the laws of perjury that the contents of this report are true and accurate to the best of my knowledge and belief.

November 3, 2010

MUNN-REESE, INC.

By Wayne S. Reese
Wayne S. Reese, President

By Justin W. Asher
Justin Ward Asher Project Engineer



385 Airport Drive, PO Box 220
Coldwater, Michigan 49036

Telephone: 517-278-7339

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

Radiofrequency Radiation Guidelines Compliance Study

The new WYFG(FM) facility for Gaffney, SC as authorized in Construction Permit File No. BPED-20070801CWG has been evaluated for human exposure to non-ionizing radiofrequency radiation at the single source transmitter site. The guidelines set forth in §1.1310 Table 1 have been used for actual RF measurements taken on site.

The WYFG(FM) facility operates on FM Channel 216C1, 91.1 MHz, with 100.0 kW ERP (H)&(V), with a center of radiation 113 meters AGL. A four bay SWR FMP5 4-4-4 DA directional panel antenna has been employed. Pursuant to Special Condition/Restriction(s) 3 & 4 of BPED-20070801CWG, RF Compliance Measurements have been undertaken and submitted per direction of the Commission.

On October 21, 2010, Ronald L Muffley, an engineer in the employ of WYFG(FM) and Bible Broadcasting Network Inc., was dispatched to the site to perform the required measurements. Measurements were made with a Narda Model 8718 Electromagnetic Survey Meter Serial Number 1453, connected to a Narda Model 8742 Isotropic Shaped Electric Field Probe. This probe is designed to measure electromagnetic fields within the frequency range of 300 kHz to 2.7 GHz. The frequency response of the probe is based on IEEE/ANSI Standard C95.1-1991, which is also the basis for the current guidelines of human exposure to radio frequency radiation established by the Federal Communications Commission. These guidelines specify Maximum Permissible Exposure (MPE) levels that vary with the frequency of the source of radio frequency energy. Thus, the response of the probe has been shaped to reflect these frequency dependent MPE parameters. This allows the survey meter to read directly in percent of the limit without the necessity to measure individual frequencies independently. Since most telecommunication sites involve multiple transmitters operating on several different frequencies, this also allows an evaluation to be made of the combined exposure from all transmitters with a single measurement. However as stated before, in this case, the site contribution originates from the single WYFG(FM) source on the FM frequency of 91.1 MHz.

For calibration purposes, the probe was placed inside the case supplied by the manufacturer. This case is lined with material designed to block the penetration of radio frequency radiation. While the probe was in this shielded environment, the self-calibration routine for the meter was successfully executed.

Calibration was performed on the premises prior to the commencement of the WYFG(FM) test operation period. Following calibration, a walking inspection was made of the entire area searching for areas of maximum exposure. No location within the vicinity exceeded 100% of the controlled limit (1,000 $\mu\text{W}/\text{cm}^2$). Subsequently, no location within the vicinity exceeded 100% of the uncontrolled limit (200 $\mu\text{W}/\text{cm}^2$) either.

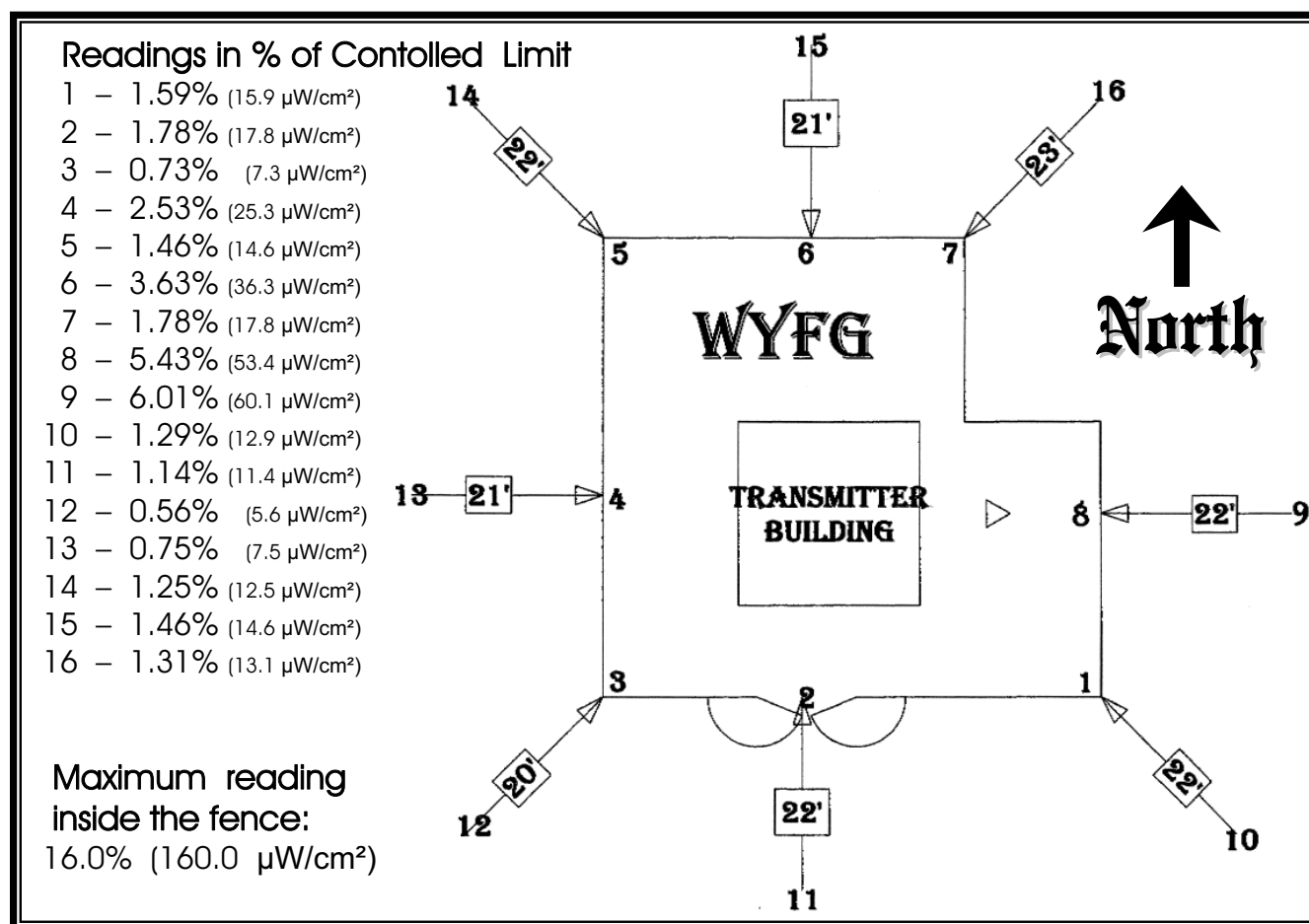
A diagram of the measured facility and recorded measurements in percentage of the 1000 $\mu\text{W}/\text{cm}^2$ controlled limit has been provided at the end of this report discussion.

Radiofrequency Radiation Guidelines Compliance Study

Permanent fencing of chain link design and 2.0 meters (6 feet) high is presently existing and installed as of the October 21, 2010 date of this RF Measurement Compliance Study. The fencing has been build to a distance of no less than 3 meter (10 feet) to the transmitter building at the nearest run. The height and horizontal distance of the fencing ensures protection to any person or persons in the event a limb is extended over or through the fencing barrier itself.

The facility is properly marked with signs, and entry to the facility is restricted by means of a locked gate. In the event work is required in proximity to the antenna such that the person or persons working in the area will be potentially exposed to fields in excess of the current guidelines, the broadcast licensee agrees to reduce power, or cease operation during the critical period to ensure worker protection

A diagram of the plat layout has been attached below:

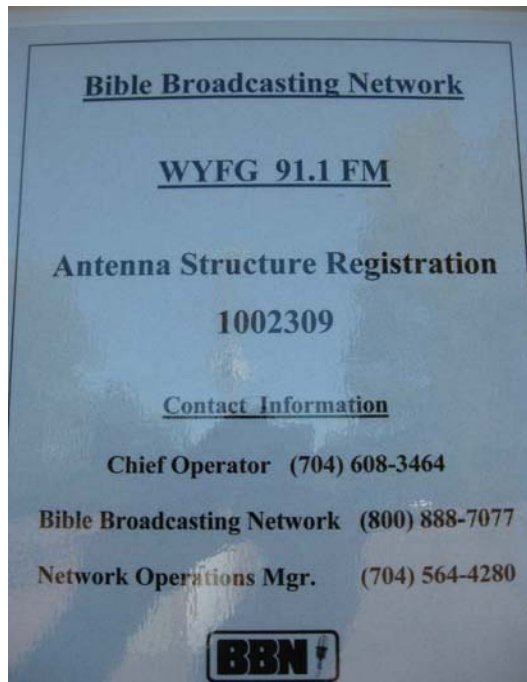
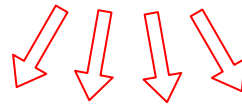


Radiofrequency Radiation Guidelines Compliance Study



Transmitter
Building &
Locked Fencing

Various Sign
Postings



Radiofrequency Radiation Guidelines Compliance Study

ENGINEER'S DECLARATION

I, Ronald L. Muffley, subject to penalties of perjury, do declare the following:

I am a graduate of the Pennsylvania State University System with a degree in Electronics Technology.

I am a Broadcast Engineer with 31 years of experience in the installation and maintenance of AM & FM transmission systems.

I am employed by the Bible Broadcasting Network, Charlotte, North Carolina, as the Director of Network Engineering and am responsible for the legal installation of broadcast equipment.

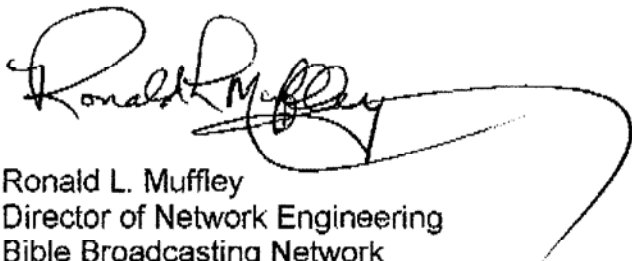
I was present during the installation of the antenna and other related broadcast equipment at WYFG-FM, Gaffney, South Carolina. Bible Broadcasting Network is the licensee of WYFG-FM.

I am familiar with the terms and conditions of the WYFG-FM Station Construction Permit and the antenna manufacturer's engineering data.

I hereby certify that I have overseen the installation of the WYFG-FM directional antenna and that the installation was completed to the specifications of the antenna manufacturer.

I personally completed RF field measurements using a NARDA Meter Class 101.

I hereby certify that all measurements were well within legal Occupational Limits and Uncontrolled Limits (see Exhibit).

A handwritten signature in black ink, appearing to read 'Ronald L. Muffley', with a long, sweeping horizontal line extending to the right.

Ronald L. Muffley
Director of Network Engineering
Bible Broadcasting Network
October 21, 2010