

# **Engineering Exhibit**

## **WLUE (FM) Louisville, KY. (FID# 53593)**

### **RF Radiation Compliance**

This engineering statement is prepared to show that WLUE (FM) does comply with the FCC established guidelines regarding exposure of RF electromagnetic fields as described in OET bulletin 65 Edition 97-01. The method for showing compliance is described below.

#### **Facilities:**

WLUE (FM) 100.5 Mhz is licensed for 37 KW Non-Directional utilizing a full wave spaced ERI HPX series 4 bay antenna. The supporting tower for the WLUE (FM) antenna is part of the 4 tower directional array for WKRD (AM) 790 Khz DA-2 (5 KW day/1 KW night).

#### **Measurement method:**

To determine the level of RF exposure, measurements were made on June 4, 2009 with WKRD (AM) operating in both Day Pattern and then again in Night Pattern and with WLUE (FM) at full licensed power in all areas of the WLUE (FM) tower. The Maximum levels of both E-field and H-field were recorded and the highest level for both patterns was used below. RF exposure levels for WLUE (FM) were made using a Narda survey meter, model 8712, 8742N E-field probe and 8752 H-field probe all pieces were calibrated by the factory on 5-5-09. The 8742N E-field probe is calibrated directly in percent of limit for Occupational/Controlled Exposure for frequencies ranging from 300 Khz to 2.7 Ghz. The 8752 H-field probe is calibrated directly in percent of limit for Occupational/Controlled Exposure for frequencies ranging from 300 Khz to 10 Mhz.

#### **General Population/Uncontrolled Exposure:**

The Maximum E-field measured level for WLUE (FM) was 13.94 % of the General population/uncontrolled exposure limit. The Maximum H-field level for WLUE (FM) was .406 mv/cm<sup>2</sup> (or 0.406% of General Population/Uncontrolled exposure limit) OET-65 limits for uncontrolled exposure at 790 Khz is 100 mw/cm<sup>2</sup>. These measurements were taken around the parameter of the fence surrounding the tower as well as along the main drive from the road to the transmitter building.

The worst case exposure percentages of 13.94% E-field and .406% H-field were summed for a total of 14.346% of the limit. The gate to the fence is securely locked and RF radiations signs are conspicuously posted on the gate and fence parameter. Therefore, WLUE (FM) complies with OET-Bulletin 65 Edition 97-01 with regard to General Population/Uncontrolled exposure.

(WLUE-FM Engineering exhibit continued)

**Occupational/Controlled Exposure:**

The maximum E-field level measure for WLUE (FM) was 2.718% of the Occupational/Controlled exposure limit. The maximum H-Field level measured for WLUE (FM) was .0812% of the Occupational/Controlled exposure limit. These measurements were taken around the parameter of the fence surrounding the tower as well as along the main drive from the road to the transmitter building.

The worst case exposure percentages of 2.718% E-field and .0812% H-field were summed for a total of 2.799% of Occupational/Controlled limit. The gate to the fence is securely locked and RF radiations signs are conspicuously posted on the gate and fence parameter. Therefore, WLUE (FM) complies with OET-Bulletin 65 Edition 97-01 with regard to Occupational/Controlled Exposure.



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