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MARANATHA BROADCASTING COMPANY, INCORPORATED

LICENSEE OF

WFMZ-DT CHANNEL 46

ALLENTOWN, PENNSYLVANIA

FCC FACILITY ID # 39884

**FCC FILE No. BPCDT-20080619AKZ
BLCDT-20100126ABW**

APPLICATION FOR A DIGITAL REPLACEMENT TRANSLATOR

FOR WFMZ-DT ON CHANNEL 45

ENGINEERING EXHIBIT 12

December 16, 2010

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MARANATHA BROADCASTING COMPANY, INCORPORATED

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APPLICATION FOR A CONSTRUCTION PERMIT FOR

A REPLACEMENT TRANSLATOR FOR WFMZ-DT ON CH 45

FOR PHILADELPHIA, PA

EXHIBIT 12

**FAA AND AM STATIONS AND REQUEST FOR “NO CONDITION” WITH RESPECT
TO WNWR**

The FAA has not been notified since the tower exists. The registration number is 1035474. WNWR(AM) is located within 3.2 km of this site. The addition of bonded transmission line and a side mounted antenna qualifies under current staff policy as “maintenance” since there will be no electrical disturbance or tower protrusions or height changes that could affect WNWR(AM). For the reasons just stated, Maranatha hereby requests that the commission does not apply a “Condition” on the Construction Permit with respect to WNWR.

RFR PROTECTION

The instant application is excluded under 1.1306. There are no physical changes proposed to the existing tower or immediate surrounding area. The proposed replacement translator is located at a multi-user site.

Using the procedures outlined in OET Bulletin 65, Edition 97-01 and specifically Appendix A, Table 1 and Equation 10, Page 21, I have evaluated the RFR energy from the antenna system of W47DO-D (CH 45) at this multi-user site as follows:

NEW (CH 45): NEW, Channel 45 is proposing digital DTV replacement operation on Channel 45 and utilizing an ERP of 0.3 kilowatts average digital power with a directional antenna and circular polarization (0.6 kW total). The proposed Channel 45 transmitting antenna is a medium gain unit with an elevation power gain of 6x side mounted with a C/R 271.3 meters up the tower. With the resulting high elevation gain, the RFR energy at steep angles below the horizon are expected to be at least 6 dB below that of the main lobe. Utilizing Appendix A, Table 1 the maximum occupational/controlled exposure level at CH 45 is 2.2 mW/cm^2 . Using Equation 10, Page 21, the distance to the 2.2 mW/cm^2 contour is 1.5 meters. For general population/uncontrolled environment the maximum exposure level is 440 uW/cm^2 . Again using Equation 10, Page 21, the distance to the 440 uW/cm^2 contour is 3.0 meters. Since the base of the antenna is approximately 270 meters above ground, the height of the structure limits the possible excessive RFR levels to at least 267 meters above ground. Again using Equation 10, the predicted RFR energy levels at 2 meters above ground is calculated at 0.05 uW/cm^2 or 0.01% of the allowable RFR energy exposure for the general population/uncontrolled environment per FCC OET 65.

Therefore the total levels of RFR energy from the proposed W47DO-D (CH 45) replacement translator at all points on the ground are below that required for protection of both the employees and the general public as required by ANSI 95.1-1992 or FCC OET 65, Edition 97-01. The RFR level from NEW replacement translator is calculated not to not exceed 0.01% of the FCC allowable for the general public/uncontrolled environment anywhere on the ground in the immediate area of the tower. Neither workers nor the general public will be inadvertently exposed to RFR energy levels from NEW replacement translator exceeding the maximum permissible exposure (MPE) levels set forth in Section 1.1310 of the Rules. *Furthermore, since the total contribution from NEW (CH 45) is below 5% of the allowable, this proposed station is exempt from further consideration on total RFR levels at this multi-user site.*

Where radio frequency fields in excess of FCC guidelines are predicted to be encountered (very near the station's transmission antenna), signs and protective devices shall secure the area affected from the general public. With respect to direct employees of this licensee, OSHA RFR guidelines will be observed. Contractors and other outside workers potentially exposed to such areas shall be advised of the hazard by posted notices or other means. The station will reduce power or cease operation, if necessary, in order to protect workers on the tower.

With these procedures in place, we believe the proposed NEW CH 45 replacement translator operation will be in compliance with the RFR energy requirements of 47 CFR 1.1307(b).