

**Engineering Exhibit  
WWBB (FM) Providence, RI  
Facility ID# 54568  
New Auxiliary Antenna**

It is proposed to mount the antenna 112.2M above ground level on a 167M tower identified by ASR# 1022392. The proposed ERP is 6.0KW, and as can be seen in Figure 1 the proposed 60dbu contour is entirely within both the presently licensed WWBB 60dBu contour and the 60dBu contour as authorized by construction permit BPH-20140804ADC.

**RF Compliance:**

The proposed antenna is an ERI SHP-1AE-DA single bay with an ERP of 6KW in both horizontal and vertical planes (12KW combined).

The FCC's version of the FM computer model (version 2.1) as referenced in "Supplement A Edition 97-01 to OET Bulletin 65 Edition 97-01" was used to determine the RF power density at various distances from the tower used by WWBB (FM). A total of 500 data points were used over a total distance of 500 meters from the tower. This distance was deemed sufficient since the power density decays to extremely small levels beyond this distance. The maximum predicted RF power density of  $7.35\mu\text{W}/\text{cm}^2$  occurs at a distance of 110 meters from the base of the tower.

The maximum predicted RF exposure level of  $7.35\mu\text{W}/\text{cm}^2$  is 3.68 % of the General Population/Uncontrolled Exposure limit of  $200\mu\text{W}/\text{cm}^2$ . Therefore, WWBB (FM) is categorically excluded from environmental processing for purposes of RF compliance, pursuant to Section 1.1307(b)(3)(ii), because the emissions from the proposed transmitter and antenna system result in a power density at ground level that is less than 5% of the applicable power density exposure limit for protection of workers and the general public.

The tower base is surrounded by a chain link fence with locked gate and RF Hazard warning signs are posted at the base of the tower. WWBB in coordination with other users of the site will reduce power or cease operations as necessary to protect persons having access to the site, tower or antenna from RF Exposure in excess of FCC guidelines.

Figure 1 Contour Map

WWBB Providence, RI Proposed Auxiliary

6KW at 92M HAAT

