

## **Comprehensive Engineering Exhibit**

### **Application for Auxiliary Antenna**

**WWWW-FM FID#: 41080**

**Ann Arbor, Michigan**

An auxiliary antenna is sought for WWWW-FM at a height of 108 meters above ground level on a tower identified by antenna structure registration (ASR) number 1048686. This is to be a directional antenna with an effective radiated power of 28 kW. As demonstrated in the attached map; the proposed combination of height, power, and use of directional antenna will limit the proposed 60 dBu contour to an area contained within the 60 dBu contour of the presently licensed facility.

The Proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio frequency Radiation."

The proposed antenna system is a an EPA type 3, 4- bay, full-wave spaced, "Rototiller " antenna, mounted with its center of radiation 108 meters above ground level, with a total effective radiated power of 28 Kilowatts in both the horizontal and vertical planes. At 2 meters above ground, at 43 meters from the base of the tower, this proposal will contribute worst case 14.4 microwatts per square centimeter, or 1.44 percent of the allowable ANSI limit for controlled exposure, and 7.2 percent of the allowable limit for uncontrolled exposure. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

Map of Proposed Auxiliary and Licensed Main 60 dBu Contours

