

FIGURE 18

RADIOFREQUENCY RADIATION GUIDELINES COMPLIANCE STUDY

This instant application has been evaluated for potential of human exposure to non-ionizing radiofrequency radiation. The guidelines set forth in OET Bulletin No. 65 (Edition 97-01) and the companion Supplement A (Edition 97-01) were used as the standard for this evaluation.

The WMKT(AM) facility will operate on 1270 kHz with a non-directional daytime power of 50.0 kW and nighttime directional power of 5.0 kW into a three tower array. The daytime tower (Tower 2) will be common to the nighttime array (Towers 1,2 and 3). The array will use vertical elements which are 73.4° in electrical length or 0.204λ (wavelengths).

Table 1 of Supplement A specifies for 0.1 - 0.2 wavelength AM towers operating on 1270 kHz with a total input power of 50.0 kW or less, the non-ionizing radiation will fall to safe levels at distances of 10 meters (32.8 feet) or more. Table 1 of Supplement A specifies for 0.1-0.2 wavelength AM towers operating on 1270 kHz with a total input power of 5.0 kW or less, the non-ionizing radiation will also fall to safe levels at distances of 5 meters (16.4 feet) or more.

The current fences for Towers 1 and 3 are built to distances of 5 meters to the base of each tower to accommodate nighttime operation. Tower 2 fencing is currently built to a distance of 10 meters to accommodate the present daytime operation. This distance also accommodates the proposed power increase as specified in the Rules. Access to areas within the fences is limited by means of locked gates. In addition to these measures, signs are also posted warning of the potential for exposure to excessive levels of non-ionizing radiofrequency radiation.

In the event maintenance personnel are required to work within the restricted areas, they will be advised to limit their work in the high RF field areas to specified periods of time appropriate for compliance with the FCC guidelines set forth in OET Bulletin No. 65 (Edition 97-01). If their work cannot be completed within the specified period of time, it is proposed to reduce power appropriately or shut down the operation of the station to permit completion of the assignment. There are no additional sources of radiofrequency radiation subject to the guidelines of OET Bulletin No. 65 (Edition 97-01) at this location.