

R.F. Emissions Study

Illinois Bible Institute, Inc.
CH. 201, Charleston, IL

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The proposed two-bay antenna will be energized such that it produces 2.1 kW effective radiated power, circularly polarized, from a center of radiation of 58.2 meters above ground. Under OST "worst case" using a height above ground of 56.2 meters to calculate the non-ionization radiation level at just above the average head height, it can be shown that the proposed antenna produces 44.43 microwatts per square centimeter which is 4.44 percent of the controlled environment maximum and 22.2 percent of an uncontrolled environment. The results of these same calculations are considerably reduced when a combination of the element vertical elevation field and the vertical array pattern are considered. Therefore, the actual measured value will be much smaller than the worst case prediction.

In regard to protecting workers at the tower site, the applicant will reduce its operating power or cease operating in the event a worker is within a range of its antenna where the sum of all non-ionization radiation exposure would exceed the maximum FCC standard for the time involved. An agreement exist with the other users of the tower to reduce power or to terminate transmission when a worker is on or near the tower where exposure would result in greater than the maximum FCC standard.

There are no other sources of AM, FM or TV R.F. emissions on or near the tower consequently, the proposed FM facility will be in compliance with the Commission's rules regarding exposure to workers or the general public to levels of radio frequency emissions in excess of the Commission's maximums with respect to human exposure to radio frequency electromagnetic fields.

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