

Human Exposure to Radiofrequency Electromagnetic Field

The proposed WLFG DTS operation was evaluated for human exposure to RF energy using the procedures outlined in the FCC's OET Bulletin Number 65.

DTS-1 Site Evaluation

At Site 1 and based on OET-65 equation (10), and considering 18 percent antenna relative field in downward elevations (pattern data shows less than 18 percent relative field at angles 20 to 90 degrees below the antenna), the calculated signal density near the tower at two meters above ground level attributable to the facility is 416.06 $\mu\text{W}/\text{cm}^2$, which is 18.3 percent of the controlled worker permissible level and 91.5% of the general population/uncontrolled maximum permitted exposure limit.

The minimum distance from the antenna was computed to be 17.7 meters for a controlled environment. As the minimum distance is more than 31 meters above ground level, no exposure in excess of the guidelines to workers is predicted to occur from this proposal at ground level.

DTS-2 Site Evaluation

For Site 2 and considering 45 percent antenna relative field in downward elevations (pattern data shows less than 45 percent relative field at angles 50 to 90 degrees below the antenna), the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 0.7515 $\mu\text{W}/\text{cm}^2$, which is 0.17 percent of the general population/uncontrolled maximum permitted exposure limit.

The results for DTS-2 site are below the five percent threshold limit described in §1.1307(b) and categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent.

All Sites

The area about the base of the tower is a restricted access area, with access granted to only authorized personnel. The general public or workers will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

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