**Educational Media Foundation**
5700 West Oaks Boulevard
Rocklin, CA 95765



## Human exposure to excess levels of radiofrequency radiation

The proposed facility is to be built using a 1-bay vertically polarized antenna.

According to OET 65, “Applicants and licensees should be able to calculate, based on considerations of frequency, power and antenna characteristics the distance from their transmitter where their signal produces an RF field equal to, or greater than, the 5% threshold limit. The applicant or licensee then shares responsibility for compliance in any accessible area or areas within this 5% “contour” where the appropriate limits are found to be exceeded.”

As can be seen in Exhibit 17-A, the proposed facility’s maximum contribution to RF on the site is 0.005µW/cm$^2$ at a distance of 70 meters from the tower, which is less than 0.1% of the uncontrolled (public) exposure limit.

Therefore, because the proposed facility will not cause an RF field that is equal to or greater than 5% of the 200 µW/cm$^2$ limit for uncontrolled exposure at any point, the proposed facility complies with the requirements of OET 65.

EMF will fully cooperate with other site users to temporarily reduce power or cease broadcasting, as necessary, to protect workers and others having access to the site from excessive levels of RF Radiation.

# Specific Antenna RF Power Density Calculator

**Based on Equation 10 of OET-65**

**Exhibit 17-A / Detailed Report**

| | | | |
|---|---|---|---|
| **ERP** | 0.25 kW | % of OET-65 | |
| **Height above ground** | 178.0 meters | 0.0% | Uncontrolled |
| **Height above head** | 176.0 meters | 0.0% | Controlled |
| **Antenna Brand** | **Jampro** | | |
| **Antenna Model** | **J3YF** | | |

| Horizontal distance from tower (meters) | Angle (°) | Distance (m) | Field | Power (W) | Power Density (uW/cm2) |
|---|---|---|---|---|---|
| 0 | 90 | 176.0 | 0.001 | 0.25 | 0.000 |
| 10 | 87 | 176.3 | 0.004 | 1 | 0.000 |
| 20 | 84 | 177.1 | 0.004 | 1 | 0.000 |
| 30 | 80 | 178.5 | 0.004 | 1 | 0.000 |
| 40 | 77 | 180.5 | 0.048 | 12 | 0.001 |
| 50 | 74 | 183.0 | 0.048 | 12 | 0.001 |
| 60 | 71 | 185.9 | 0.048 | 12 | 0.001 |
| 70 | 68 | 189.4 | 0.148 | 37 | 0.005 |
| 80 | 66 | 193.3 | 0.148 | 37 | 0.005 |
| 90 | 63 | 197.7 | 0.148 | 37 | 0.005 |
| 100 | 60 | 202.4 | 0.148 | 37 | 0.004 |