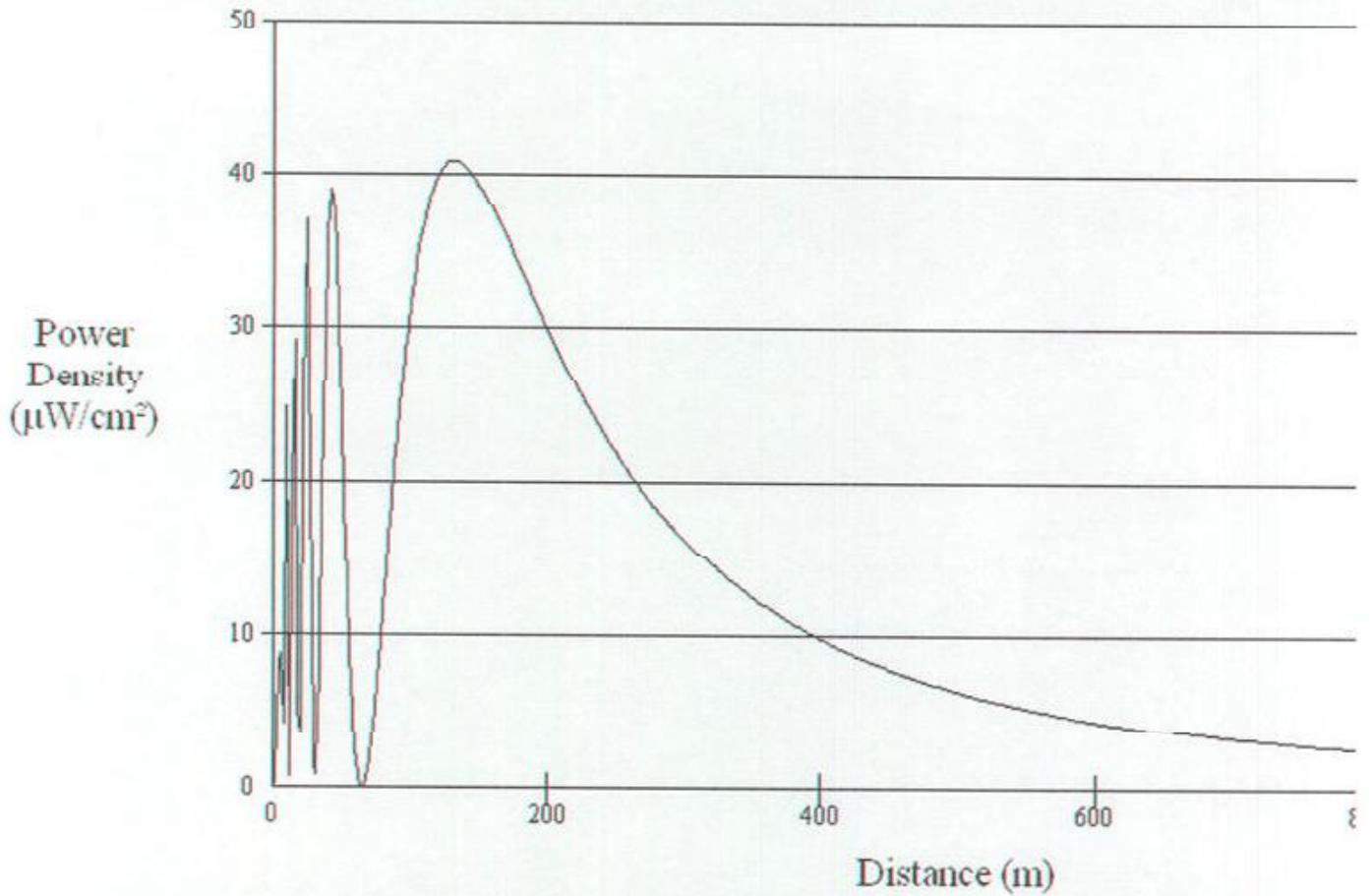


Power Density vs Distance



Office of Engineering and Technology

| | | | |
|---------------------|------------------------------------|---------------------|--|
| Distance (m): | <input type="text" value="1000"/> | Antenna Type: | <input type="text" value="ERI or JAMPRO JBCP 'Rototiller' (EPA)"/> |
| Horizontal ERP (W): | <input type="text" value="25500"/> | Number of Elements: | <input type="text" value="12"/> |
| Vertical ERP (W): | <input type="text" value="26500"/> | Element Spacing: | <input type="text" value=".5"/> |
| Antenna Height (m): | <input type="text" value="13"/> | | |

EXHIBIT E-2A
FEM MODEL STUDY
KRRR PROPOSED

EXHIBIT E-2

ENVIRONMENTAL COMPLIANCE
KRRR Cheyenne, Wyoming
FCC Form 301
September 2002

This proposal has been evaluated with respect to the RF radiation exposure guidelines contained in ANSI Standard OET Bulletin 65, edition 97-01, along with Supplement A (Edition 97-01) regarding additional information for Radio and Television Broadcast Stations.

For the FM band, the MPE limit for general population/uncontrolled exposure is 0.2 mW/cm^2 (200 uW/cm^2) and the limit for the occupational/controlled exposure is 1 mW/cm^2 (1000 uW/cm^2).

Worst case estimates were used for figures 6 thru 15, Supplement A, Section 2. In each case, with a proposed Effective Radiated Power of 25.5 Kilowatts horizontal and vertical (total of 51,000 watts) at a Center of Radiation of 15 Meters above ground (this is minus 2 Meters from the proposed C.R. allowing for the average height of a human on the ground) utilizing an Armstrong 727- 12 AE, 12 bay, half wave (.5) wavelength spacing, it was found that the proposed facility was within ANSI limits.

Exhibit E-2A, of this study shows the results from the FM Model program used by the Commission. It shows that the highest power density would be 40.854 uW/cm^2 ($.0485 \text{ mW/cm}^2$) at a distance of 130 Meters from the antennas at the ground.

Where accessible areas of the support structures are within the hazard zone, they will be posted with signs and protected from un-authorized access. The base of the

Exhibit E-2 (continued)

tower will be surrounded with metal fencing and again posted with RF radiation warning signs on the fencing.

The Licensee, Mountain States Radio, Inc., certifies that it will cooperate with tower personnel and other users of the tower to either reduce power to safe operating levels or cease transmissions while maintenance is performed on the tower.

Any incidence of blanketing interference resulting from the proposed operation should occur within a radius of approximately 1.2 kilometers.

The applicant assumes full responsibility for remedying the complaints of blanketing interference for a period of one year. Following the one year period of full financial obligation to satisfy blanketing complaints, the licensee shall provide technical assistance to affected persons on remedies for blanketing interference. Since the area inside the blanketing contour is sparsely populated, no serious blanketing interference problems are anticipated.