

**FM MODEL**  
**Calvary Chapel of Twin Falls, Inc.**  
**May 2004**  
**BPED-19931207MD**  
**BOISE, ID**  
**RF COMPLIANCE**  
**Environmental Issues**

1.) Sensitive Areas and Surface Features

The proposed station is located on a remote mountain top called War Eagle Mt. This site is not within the boundaries of any designated wilderness area, wildlife preserve, or historic landmarks. It is not of environmental significance as defined by the Commission in CFR §1.1307(a)(1-7).

2). New High Intensity Lighting in Residential Areas

The proposed site is not located in a residential area and is therefore not of environmental significance as defined by the Commission in CFR §1.1307(a)(8).

3.) Radiation Hazard Analysis

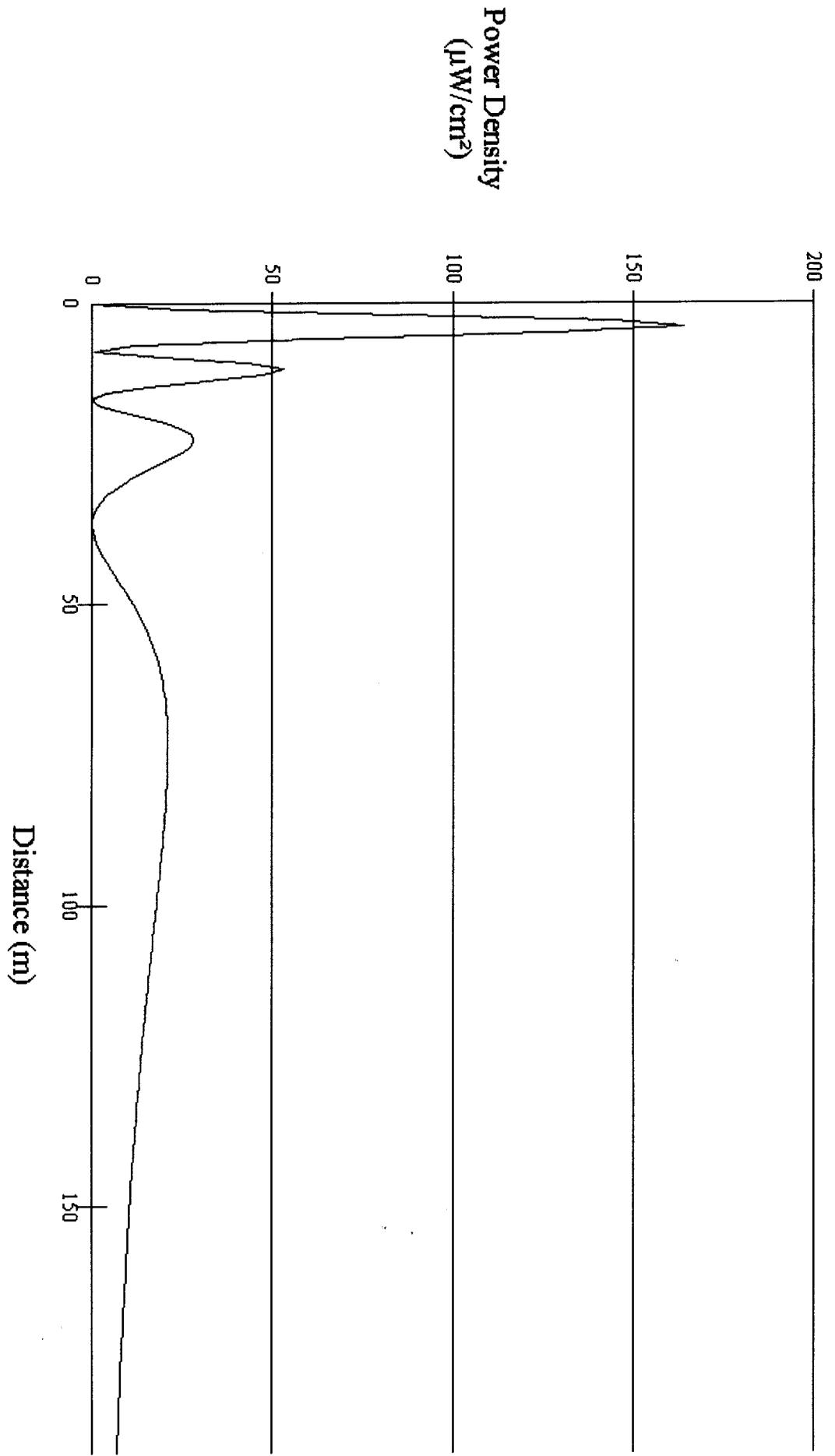
Appendix C of OST Bulletin No. 65 (second edition) specifies the maximum radiation in the 30 MHz to 300 MHz region should be limited to 1000  $\mu\text{w}/\text{cm}^2$  for occupational/controlled exposure and 200 $\mu\text{w}/\text{cm}^2$  for general population/uncontrolled exposure. The instant application was evaluated with a modified version of the Commission's own FMMODEL program, acquired from the FCC Office of Engineering and Technology Internet site. The vertical pattern data for this application was taken from the same FMMODEL program using a 4 bay Telewave antenna array and produces the maximum scenario for this situation.

There are currently two other authorization designated on this tower, KIDH, Jordan Valley, OR, and KARJ, Kuna, ID. Both are licensed to Educational Media Foundation. Neither of these authorizations is presently operating from this site and KARJ has a modification to move to another tower due to availability of power at this site. KIDH, Jordan Valley is on channel 215, circularly polarized 15.5 kW at 21 meters AGL. KIDH has submitted an application to modify its CP to 200 watts vertical ERP. This application will only use the Proposed and the application for KIDH at .200 kW. The percentage of occupational and general RF exposure uses KIDH/EMF's proposed taken from application BMPED-20041026AGB at 78.1824  $\mu\text{W}/\text{cm}^2$ . The maximum theoretical RF value would be 242.4  $\mu\text{w}/\text{cm}^2$  at a distance of 2 meters from the tower, which is 121.2% of the 200 $\mu\text{W}/\text{cm}^2$  permitted for uncontrolled exposure and 24.42% of the controlled exposure, as shown below.

	Emissions	Antenna	Percent Occupational	Percent General
This Proposal	8.75kW V@ 12 m	4 Bay/.95 wvsp	16.42%	82.1%
KIDH	.2 kW V @ 9 m	2 bays@fwvsp	7.82%	39.1%
Totals			24.24%	121.2%

The tower is owned by Intermountain Communications and is located on a remote mountain top site called War Eagle. The site is only accessible for 3-4 months out of the year by approximately 20 miles of dirt road, due to adverse weather conditions and no upkeep of the dirt road. The last several miles of this dirt road is a single lane, treacherous drive up the mountain and barely accessible by 4 wheel drive vehicles under good circumstances. Due to the road conditions and location of the site, it is not accessibility by the general public. All appropriate steps will be taken to insure that anyone at this site, who is close to the tower or may need to climb the tower, will not be exposed to levels of radiation. These steps include, but are not limited to, the posting of RF Hazard signs at the site where the hazard begins, on the tower and on the equipment buildings, approximately 10-12 feet from the tower. More steps would also include a reduction in power or cessation of operation, as appropriate, when work becomes necessary on the tower or in the area where the power density levels are in excess of the permitted level for controlled exposure.

# Power Density vs Distance



Office of Engineering and Technology

Distance (m):  Antenna Type:

Horizontal ERP (W):

Vertical ERP (W):

Antenna Height (m):

Number of Elements:  Element Spacing:

Proposed Boise, BPEL-19931207MD

164.2  $\mu\text{W}/\text{cm}^2$  @ 4 meters AGL 16.42% Occupational / 82.1% General