

TELECOMMUNICATIONS ENGINEERING

GRAY FRIERSON HAERTIG & ASSOC.

820 NORTH RIVER STREET, SUITE 100

PORTLAND, OREGON 97227

503-282-2989

503-654-1142

FACSIMILE  
503-282-3181

ELECTRONIC MAIL  
gfh@haertig.com

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## ENVIRONMENTAL CONSIDERATIONS

The proposed site is not in an officially designated wilderness area, wildlife preserve, flood plain, or near a site that is either listed or eligible for listing in the National Register of Historic Places. The proposed construction will not adversely effect any listed or proposed threatened or endangered species or their critical habitats, or any sites significant to Native American Religious practice, and will not involve any significant change in surface features. The applicant does not propose to light the antenna support structure with high intensity white lighting.

### **Non-Ionizing Electromagnetic Radiation**

The proposed facility is to be located near the apex of a hill. There are no significant rises in terrain within several hundred meters. The applicant proposes to operate at 0.95 kw, circularly polarized, using a Shively 6814-3SS antenna consisting of three circularly polarized radiating elements at one half wavelength spacing located 17 m AGL. The point of closest approach is immediately beneath the tower.

Access to the site is restricted by a locked gate and the site is not generally accessible to the public. There are no publicly accessible areas within several hundred meters of the proposed antenna. Even though it is anticipated that the radiofrequency

electromagnetic field will be quite low, signs will be erected at the gate and in the immediate vicinity of the transmitting tower indicating that it may exceed the general public/uncontrolled MPE standard.

This office performed a study to ascertain compliance of the proposed facility with the requirements of 47 CFR §1.1307(b) and the exposure guidelines set out in Bulletin 65 (Edition 97-01), FCC Office of Engineering and Technology and to determine whether the instant application might be subject to environmental processing or require the preparation of an Environmental Assessment.

We have chosen to show that the contribution to the total ground level radiofrequency power density is less than 5% of the occupational/controlled MPE standard. As such, the applicant would be relieved from having to participate in any ameliorative measures per 47 CFR §1.1307(b)(3) if it were later determined that this standard was being exceeded or from preparing an Environmental Assessment.

Attached below is the graphical output produced by the Commission's FMModel program showing ground level RF power density versus distance from the tower base for the proposed operations. Fig. 1 represents the radiofrequency power density at ground level attributable to the proposed operation. Horizontal and vertical powers of 950 watts and a height of 17 meters were entered as starting parameters for the program. The maximum predicted ground level radiofrequency power density is  $11.7 \mu\text{W}/\text{cm}^2$ . This represents approximately 1.2% of the  $1000 \mu\text{W}/\text{cm}^2$  occupational/controlled standard.

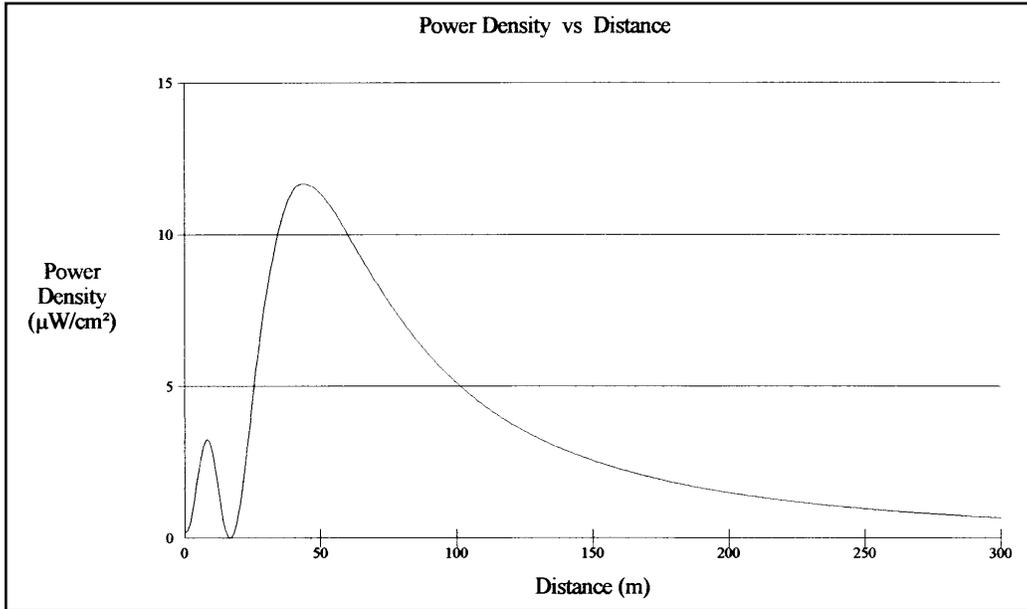


FIGURE 1

The applicant is cognizant of its responsibility to protect those workers whose duties require that they be in the vicinity of the antenna from exposure to radio frequency fields in excess of those outlined above. To that end, signage will be attached to the base of the antenna support structure warning workers of the potential for harmful exposure and directing them to contact the responsible person at the proposed broadcast station. That person will ascertain whether the worker will be in areas where there is an exposure hazard and, if so, arrange to shut down the transmitter.

The applicant believes that the proposed operation does not represent a significant impact to the human environment and therefore the instant application is not subject to environmental processing nor is the preparation of an Environmental Assessment necessary.