KTNW Minor Modification
Attachment 3, Environmental Statement
Washington State University

The transmitter site is located on an unpaved access road approximately 12 km south of Kennewick, WA. Unauthorized access is prevented through a locked perimeter fence around the facility (transmitter building and tower). The transmitter will be located in a locked building. The antenna will be mounted on an existing structure at the site.

The tower is not located in an officially designated wilderness area, nor is it in an officially designated wildlife preserve. It is also not located near any site listed in the National Register of Historic Places and is not near an Indian religious site. High intensity strobe lighting is not proposed for the tower.

Using elevation data provided by the antenna manufacturer and OET Bulletin 65[1], Equation (10), maximum exposure 2 meters above ground level was determined and is plotted in Figure 1. The Micronetixx SFN-3030-B-10(E/P) antenna is elliptically polarized with 70% of the field in horizontal polarity and 30% field in vertical polarity. This provides a total power for the calculations of 78.57kW. The greatest exposure occurs at a distance of 79 meters from the base of the tower, and is 25.7μW/cm^2. This is 7.4% of the general population limit of 347μW/cm^2 at the center frequency of 521MHz. Therefore, the proposed facility is not expected to result in RF exposure to the general public that would exceed the Commission's standards.

The applicant is cognizant of their 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 is attached to the base of the antenna support structure warning all 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.

Washington State University has published guidelines for all sites, which includes procedures that protect employees from high levels of radiation. All employees required to work in hazardous conditions are thoroughly trained in RF hazard prevention.

[1] OET Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", Edition 97-1, August 1997

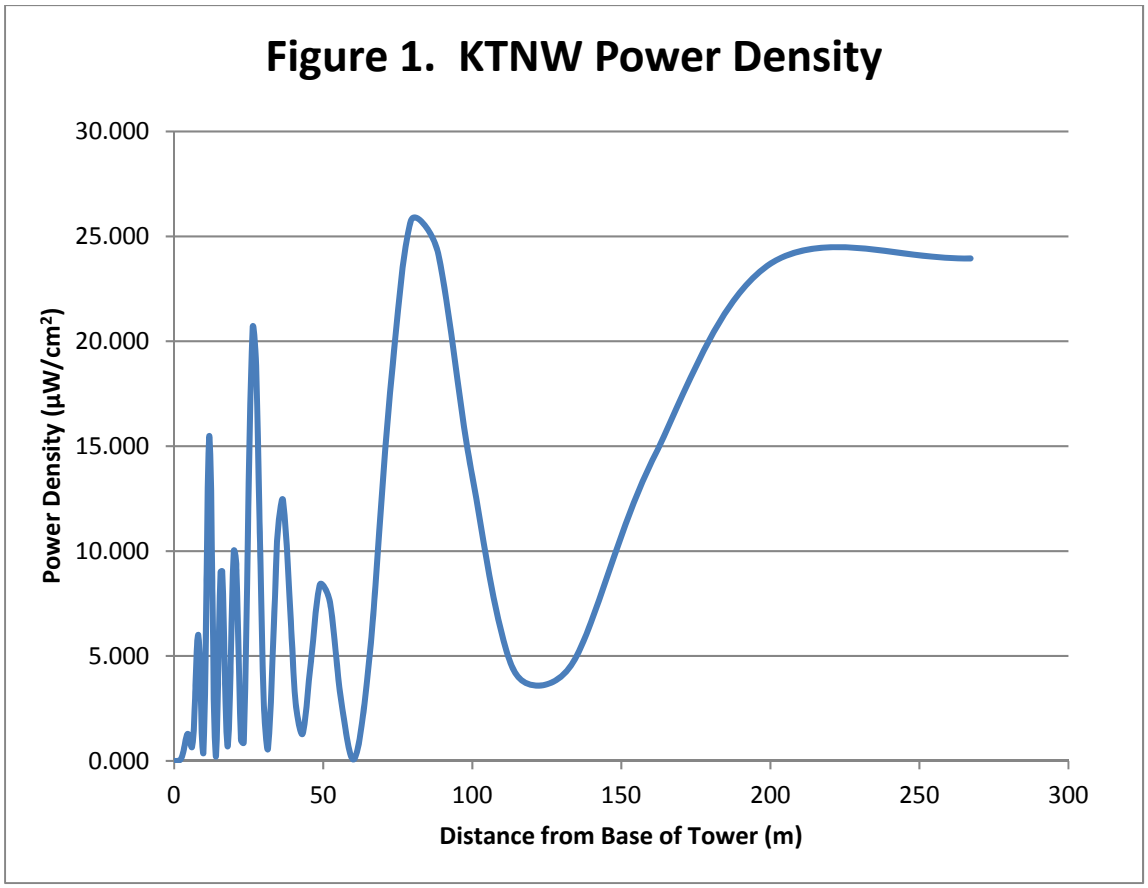
Figure 1. KTNW Power Density
30.000
25.000
20.000
15.000
10.000
5.000
0.000
Power Density (µW/cm²)
0
50
100
150
200
250
300
Distance from Base of Tower (m)