

TELECOMMUNICATIONS ENGINEERING
GRAY FRIERSON HAERTIG & ASSOC.
4646 S.W. COUNCIL CREST DRIVE
PORTLAND, OREGON 97239
503-282-2989 (Office)
503-807-2989 (Cell)

ELECTRONIC MAIL
gfh@haertig.com

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Prepared for Sorensen Pacific Broadcasting
KPXP-LP, Garapan, Northern Marianas Islands

ENVIRONMENTAL CONSIDERATIONS

The proposed antenna is to be mounted at the 24 meter level of an existing 43 meter, guyed communications tower. The applicant proposes no new buildings nor other ground disturbances, nor will high intensity aviation obstruction lighting be employed.

An engineering analysis was performed to determine whether the facilities proposed herein comply with the maximum permissible exposure standards outlined in 47CFR1.1310 as regards human exposure to radiofrequency electromagnetic fields and whether environmental processing would be required.

The applicant proposes to operate at 0.78 kilowatts, horizontally polarized, using a Jampro JHD-HV2 antenna mounted 24 meters AGL. This antenna consists of two panel style radiators, oriented 22° and 202°, true. Each radiator consists of two horizontal dipoles placed in front of a reflective screen, spaced ½ wavelength apart, vertically.

The antenna support structure is located near the apex of Mount Tapochau located on Saipan. There are no significant rises in terrain within several hundred meters. The point of closest approach to the antenna is directly beneath it. There are numerous transmitters in the FM Service within 170 meters of the proposed antenna. The base of the tower is accessible to the general public.

The commission's FMModel computer software was used to calculate the radiofrequency electromagnetic power density in a plane 2 meters AGL as a function of the distance from the antenna support structure. Elevation pattern data taken from the manufacturer's literature was entered into the software and employed in the calculation of the power density. The proposed facility will transmit an NTSC signal at 0.78 KW ERP visual power with an aural power of 0.156 KW. Per the recommendations in Supplement A of FCC Bulletin OET 65 the power density was computed using a visual power equal to 0.4 times the proposed ERP plus the aural ERP. A copy of the graphical output of this program is attached.

The highest power density occurs at a point 34 meters from the base of the tower and is equal to $4.1 \mu\text{w}/\text{cm}^2$. This represents 2.05% of the general public/uncontrolled MPE standard of $200 \mu\text{w}/\text{cm}^2$.

Because this is less than 5% of the appropriate MPE standard, the applicant's contribution to the ambient radiofrequency electromagnetic power density need not be considered in calculations by others, nor would the applicant be required to participate in any remediative actions that might be necessary were it determined that the MPE standard was exceeded in areas due to the operation of others.

Appropriate signs will be installed at the base of the tower warning workers and others that the maximum permissible exposure standard may be exceeded at locations on the tower.

The applicant believes that the facilities proposed herein conform to the MPE standards outlined in 47CFR1.1310 and that environmental processing is not warranted.

