

NIER Analysis  
KMHS-FM  
Channel 217C3  
Coos Bay, OR

Construction of the facilities authorized by Construction Permit BMPED-20070730ANY has been completed. The antenna installed is a SWR FM3H/4 4 element antenna with an element spacing of one wavelength. While the above referenced Construction Permit authorizes 10 kW ERP in both horizontal and vertical polarizations, the antenna installed is horizontally polarized only.

The KMHS-FM antenna is mounted on the tower of KMHS-AM, which operates at a maximum (daytime) power of 1 kW. According to Table 2 in OET Bulletin 65 (Supplement A), the fencing distance requirement for a 1 kW AM station using a 1/4 wavelength tower is 1 meter. The fence constructed around the KMHS tower is 12' tall, and is a minimum of 12 feet from the tower base, well in excess of the OET-65 requirement.

According to a study using the Commission's computer program FMModel, the maximum power density created by KMHS-FM is  $30.5 \mu\text{W}/\text{cm}^2$ , which is 15.25% of the MPE standard for areas accessible to the public.

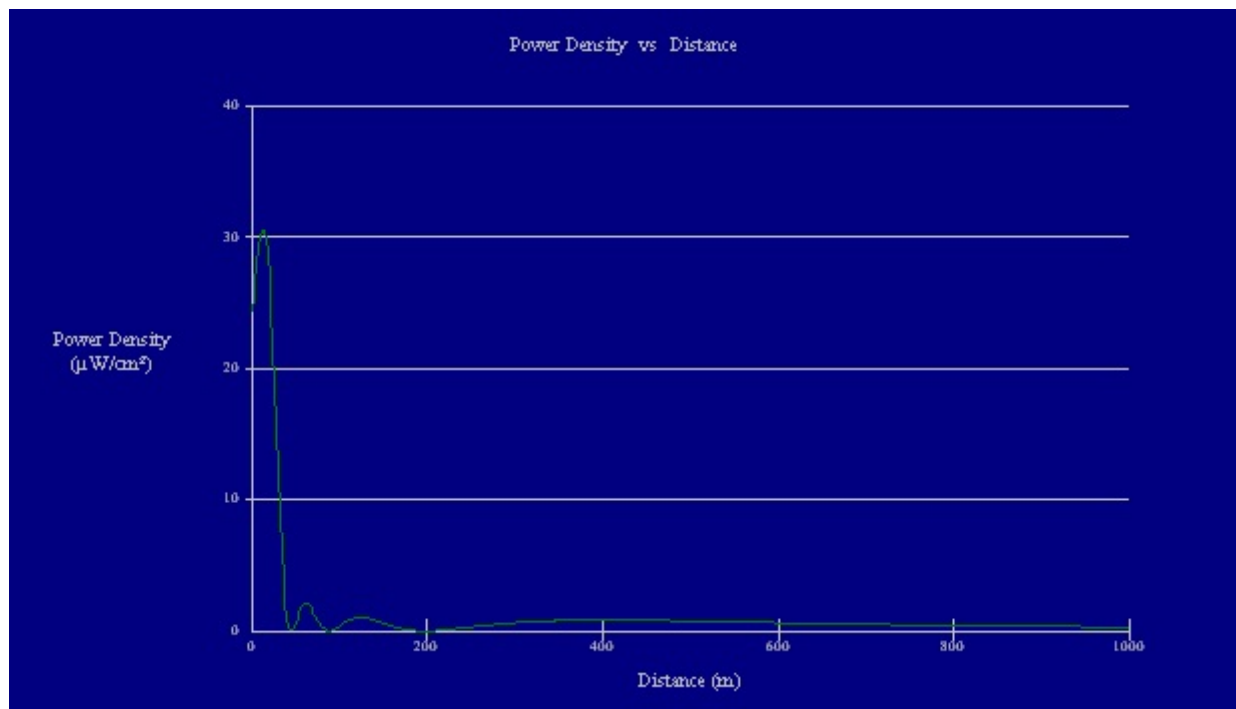
A search of the Commission's databases reveals no other likely sources of RF in the vicinity of the KMHS antenna.

As the operation of KMHS-FM produces a power density far below the MPE limit, and the tower fence is three times the distance required from the tower base, we respectfully request Special operating condition #5 be removed from BMPEF-20070730ANY, and that this engineering statement be accepted as an adequate showing of compliance with the Commission's rules regarding human exposure to radio-frequency radiation.

June 2, 2008



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#### GROUND LEVEL NIER

KHMS-FM, 217C3 Coos Bay, OR

Antenna Type: SWR FM3H/4

No. Of Elements: 4

Element Spacing: 1

Distance: 1000 meters

Horizontal ERP: 10 kW

Vertical ERP: 0

Antenna Height: 53 meters AGL

Maximum Power Density is  $30.5 \mu\text{W}/\text{cm}^2$  at 14 meters from the tower base.