

November 2016
KSWD(FM) Channel 262B
Los Angeles, California
STA Engineering

Facilities Proposed

In order to accommodate work which will be performed at the Mount Wilson communications site, Entercom requests Special Temporary Authority to operate FM station KSWD from its formerly licensed main antenna, which remains installed on its tower. The FCC file number for the old main antenna is BLH-19850528KC. However it is known that the coordinate and height data for the old main license differed somewhat from the constructed facility. This STA request utilizes the corrected site data.

The proposed STA operation will be on Channel 262B (100.3 MHz) with an effective radiated power of 4 kilowatts, in order to prevent extension of the STA 60 dBu contour beyond the licensed KSWD 60 dBu contour. KSWD is a grandfathered super-power station. Operation is proposed with the 2-element circularly-polarized omni-directional antenna which remains installed on an existing tower with FCC Antenna Structure Registration Number 1013889.

RF Exposure Calculations

The power density calculations shown below were made using the techniques outlined in OET Bulletin No. 65. "Ground level" calculations in this report have been made at a reference height of 2 meters above ground to provide a worst-case estimate of exposure for persons standing on the ground in the vicinity of the tower. The equation shown below was used to calculate the ground level power density figures from each antenna.

$$S(\mu W / cm^2) = \frac{33.40981 \times AdjERP(Watts)}{D^2}$$

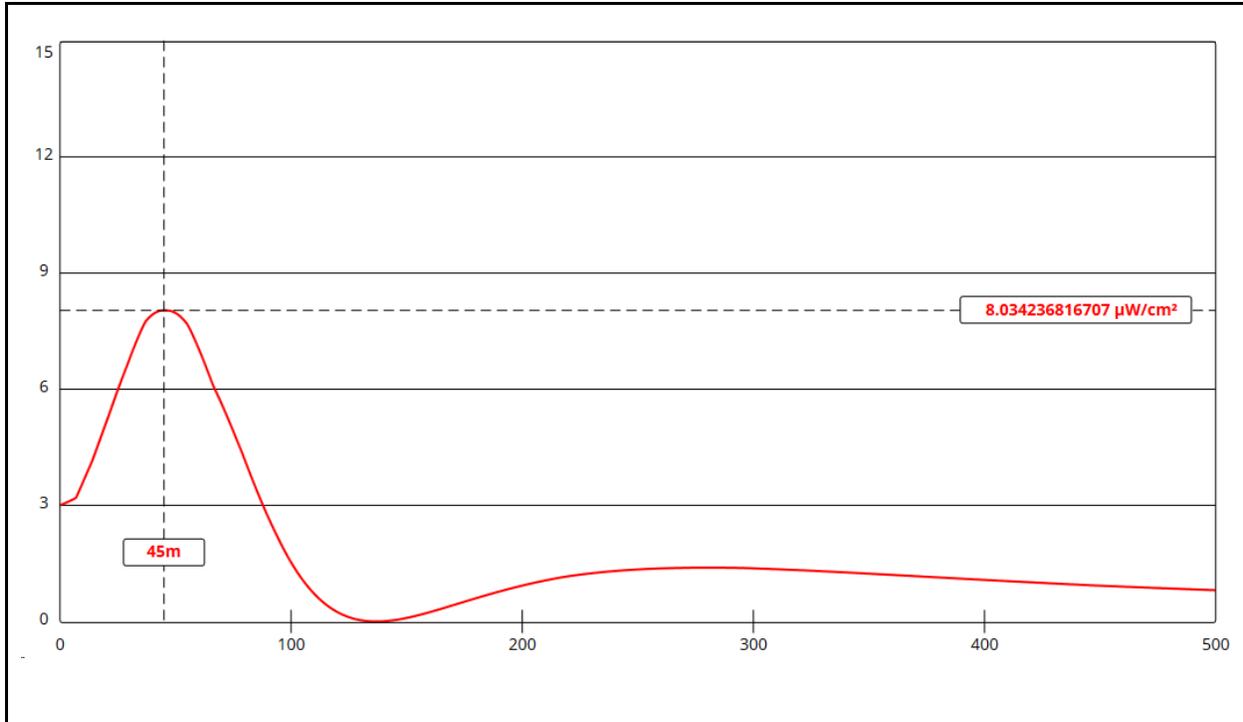
Where: *AdjERP(Watts)* is the maximum lobe effective radiated power times the element pattern factor times the array pattern factor.

D is the distance in meters from the center of radiation to the calculation point.

Ground level power densities have been calculated for locations extending from the base of the tower to a distance of 500 meters. Values past this point are increasingly negligible.

Calculations of the power density produced by the proposed STA antenna system assume a Type 2 element pattern, which is the element pattern for the JSCP-2 antenna proposed for use. The highest calculated ground level power density occurs at a distance of 45 meters from the base of the antenna support structure. At this point the power density is calculated to be $8.0 \mu\text{W}/\text{cm}^2$, which is 4% $200 \mu\text{W}/\text{cm}^2$ (the FCC standard for uncontrolled environments).

The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency exposure in excess of FCC guidelines.



Ground-Level RF Exposure

OET FMModel

KSWD 262B STA Facility

Antenna Type: Cetec (Jampro) JSCP-2 (Type 2)

No. of Elements: 2

Element Spacing: 1.0 wavelength

Distance: 1000 meters

Horizontal ERP: 4 kW

Vertical ERP: 4 kW

Antenna Height: 81 meters AGL

Maximum Calculated Power Density is 8.0 $\mu\text{W}/\text{cm}^2$ at 45 meters from the antenna structure.

