

Environmental Impact / RFR Hazard Analysis Study Methodology and Narrative

A theoretical analysis has been conducted of the human exposure to radio frequency radiation (“RFR”) using the calculation methodology described in OET Bulletin 65, Edition 97-01. The RFR analysis is conducted pursuant to the following methodology:

Terrain¹ extraction is compiled from the proposed tower site to radial lengths of 0.25 miles in 0.001 mile increments for 360 radials. The power density is calculated for each terrain point at 6 feet above ground level using the elevation and azimuth pattern of the proposed broadcast antenna. The power density calculations are conducted using the lower edge of the proposed channel frequency. To account for ground reflections, a coefficient of 1.6 was included in the calculation.

The resulting cylindrical polar analysis is then summarized into a coordinate plane graph using the following methodology:

Starting from the origin the maximum calculated RFR value is determined among the 360 degree radials for each 0.001 mile increment, the value is

¹ Terrain extraction is based upon a 3 arc second point spacing terrain database.

then converted into a percentage of the maximum allowable general population or uncontrolled exposure and plotted as a function of perpendicular distance from the tower.

The resulting RFR study demonstrates that the peak exposure is 20.9% of the maximum allowable general population or uncontrolled exposure at locations six feet above ground within a 1500 ft radius from the tower base.

KASW is licensed to operate from a site commonly known as the South Mountain Communications Site (the “SMC Site”) located south of Phoenix, AZ. The SMC Site is a multi-user telecommunications site with many significant sources of radiofrequency radiation. The entire site is surrounded by an eight-foot tall chain link fence affixed with RF warning signs at appropriate intervals along the fence. Site access is controlled by two securely locked electric gates, which are operated by an electronic key card system.

Pursuant to OET Bulletin 65, when performing an evaluation for compliance with the FCC's RF guidelines all significant contributors to the ambient RF environment should be considered, including those otherwise excluded from performing routine RF evaluations. For purposes of such consideration, significance can be taken to mean any transmitter producing more than 5% of the applicable exposure limit at accessible locations. The percentage of all the sources of

contributions are then added to determine whether the limits are (or would be) exceeded.

The proposed facility contributes more than 5% of the exposure limits, and is in a complex RF environment beyond the scope of theoretical calculations to formulate a total exposure calculation. It is believed that a comprehensive measurement survey should be conducted and an Environmental Assessment “EA” should be submitted with the license to cover the construction permit resulting from the instant application.

FAR FIELD EXPOSURE TO RF EMISSIONS

