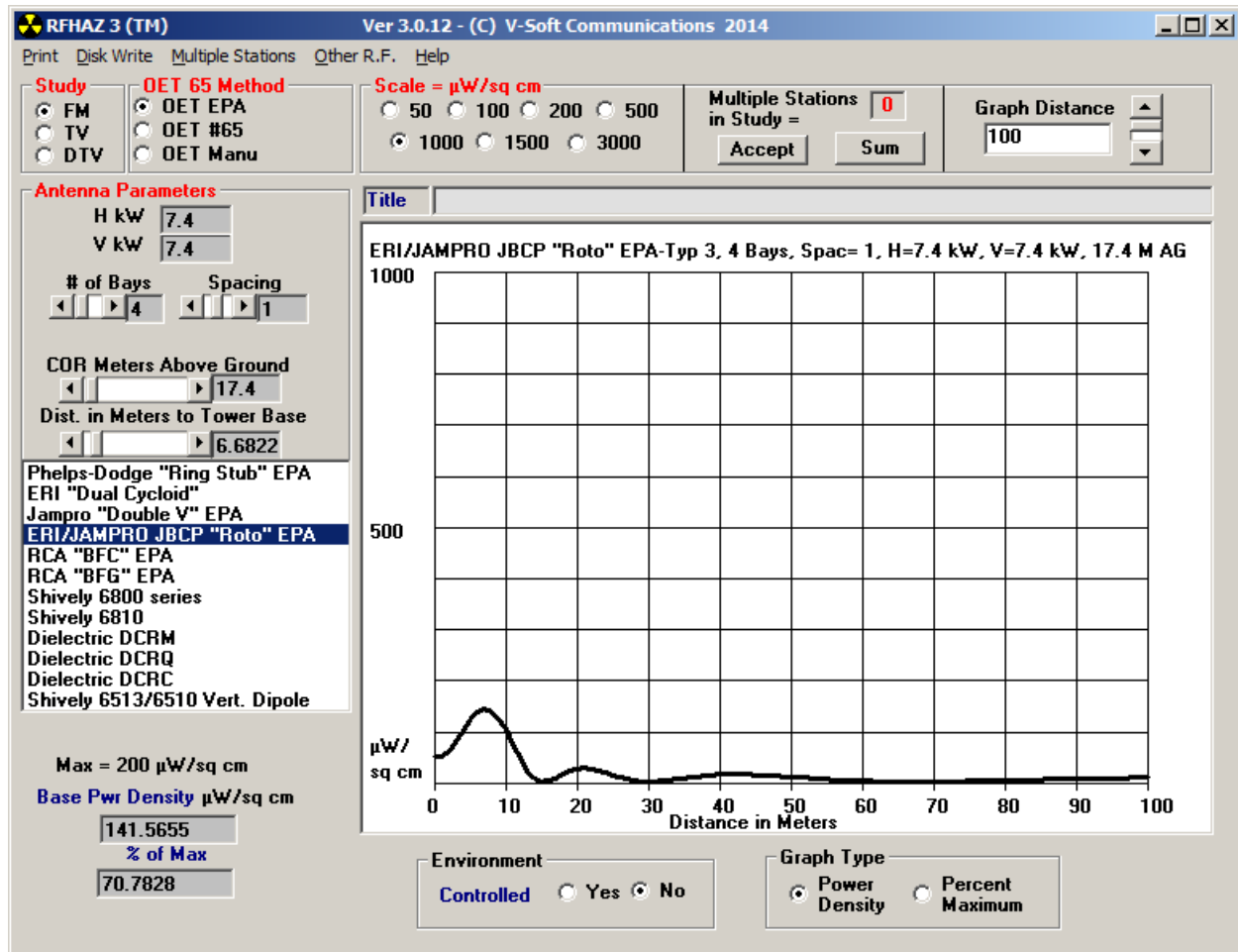


RF Emissions Study KDSC (7.4 kW Circularly polarized):

KDSC uses an ERI LPX-4C , EPA type 3 antenna from an antenna height center of 19.4 meters above ground. Using the OET 65 formulas, modified for the EPA studies, we find that the power density at head height at the tower base is 48.99 microwatts per square centimeter. This amounts to 24.5 percent of the uncontrolled maximum. However, as the graph shows below, the head height power density at 6.68 meters from the base is 141.57 microwatts per square centimeter. This is 70.78 percent of the uncontrolled maximum for a six-minute exposure.



KJAI operates its transmitter from very near the same location as KDSC. The station transmits with 0.097 kW of radiated power using the SWR FM-3 -1, type 2, directional antenna. Since this antenna is directional, we used the OET 65 formulas for "worst case", without regard to the typical emissions reduction at the nadir due to the vertical elevation field. This study shows that KJAI produces 8.9 microwatts per square centimeter at head height at the nadir, which is 0.889 percent of the maximum for a controlled area and 4.45 percent for an uncontrolled area. Adding KJAI's worst case power density with the proposed KDSC power density amounts to 75.23 percent of the maximum. The applicant has an agreement with KJAI to reduce power when there are workers in the antenna field that may be exposed to emissions level beyond the maximums.