Response to Note #7 from e-mail dated June 25, 2002: Correspondence #: 23243

Your ¶7 requests that the RF exposure (power density) be calculated in mW/cm^2 at 20 cm. I respond with two (2) methods:

1. **Relating the measured power density (MPE)**
   Ex. P Page 4 from 1 inch to 20 cm.

2. **Calculating the power density ("PD") at 20 cm**
   Using formulas from OET65 Pages 18 & 19.

Power Density @ 20 cm: Measured

PD measured at 1" = .024 mW/cm^2
Distance conversion 1" = 2.54 cm
Conversion = 2.5400
Cm to inches= .3937

Distance 20 cm = 7.8740"
PD Conversion distance: 1" to 20 cm = (7.8740)^2
PD @ 20 cm = .024/62.001 = .000387 mW/cm^2

Power Desnity @ 20 cm: Calculated:

$$S = \frac{EIRP}{4\ R^2} = \frac{.962}{(12.56)400}$$

S = .000191 mW/cm^2

Truly Worst Case Calculated:

$$S = \frac{EIRP}{R^2} = \frac{.962}{3.1416x400}$$

$$= \frac{.962}{1,256.64} = .000766 \text{ mW/cm}^2$$

R = distance in cm from antenna.

NOTE: formulas from OET Bulletin 65 Page 19 & 20.

In either case, measured or calculated, the power density is considerably below the

MPE of 1 mW/cm^2.