Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{PG}{4\pi R^2}$$

where: S = power density
P = power input to the antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

Maximum peak output power at antenna input terminal:	26.16	(dBm)
Maximum peak output power at antenna input terminal:	413	(mW)
Antenna gain(maximum):	12.84	(dBi)
EIRP	7.94	W
ERP	4.85	W
Maximum antenna gain:	19.2	(numeric)
Time Averaging:	100	(%)
Prediction distance:	50	(cm)
Prediction frequency:	800	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.53	(mW/cm^2)

Power density at prediction frequency: 0.253 (mW/cm^2)

Margin of compliance: -3.24 (dB)

This equates to: 2.53 W/m^2