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

Example: +31 dBm carrier level with 20 cm. separation distance allows antenna gain of 3.6 dBi

Maximum peak eirp:	34.60	(dBm)
Maximum peak eirp:	2884.031503	(mW)
Time Averaging:	100	(%)
Prediction distance:	20	(cm)
Prediction frequency:	869	(MHz)
MPE limit for uncontrolled exposure at prediction frequency:	0.579333333	(mW/cm^2)
Power density at prediction frequency:	0.573760	(mW/cm^2)
Margin of compliance:	0.0	(dB)
This equates to	5.737598372	W/m^2