Environmental evaluation and exposure limit according to FCC CFR 47part 1, §1.1307, §1.1310

The Shut Off Actuator is classified as a mobile device. The Shut Off Actuator include 915MHz transmitter.

The FCC limit for power density for general population/uncontrolled exposure is f/1500 mW/cm^2 for 300 – 1500 MHz frequency range:

$P = 912.75/1500 = 0.61\ mW/cm^2$

The power density **$P\ (mW/cm^2) = P_T / 4\pi r^2$**

PT is the transmitted power, which is equal to the peak transmitter output power 13.75dBm plus maximum antenna gain (-2)dBi, the maximum equivalent isotopically radiated power EIRP is

$$P_T = 13.75dBm + (-2)dBi = 11.75dBm = 14.96mW$$

The power density at 20 cm (minimum safe distance, required for mobile devices), calculated as follows:

Compliance with FCC limit: $14.96\ mW / 4\pi\ (20\ cm)^2 = 0.002\ mW/cm^2 << 0.61\ mW/cm^2$

General public cannot be exposed to dangerous RF level.