RF Safety Exposure Categorization

Exposure Conditions	Control Measures	Signage
• Operational of the source(s) or locations where RF fields are too weak to cause exposures greater than General Public limit. Cat. | Occupational Worker | General Public **1** | **<20%** | **<100%** • Green zone is where the time and spatial-average is below 20% of Occupational Worker limit or <100% of General Public limit.	• RF Safety Guideline/NIER report must be submitted to RFSO for approval. • No special EME safety practices required in these areas. • No signage required except Information sign.	 **the antenna owner information and Antenna Structure Registration Number and must be displayed on the sign.* INFORMATION sign for access to rooftop/access door.
• Operational of the source(s) or locations where RF exposure could cause exposure greater than General Public limit but not the Occupational Worker limit to be exceeded in accessible areas. Cat. | Occupational Worker | General **2** | **≥20% but <100%** | **>100%** • Blue zone is where the spatial average is between 20%-100% of Occupational Worker limit. This limit MUST be less than the Occupational limit.	• RF Safety Guideline/NIER report must be submitted to RFSO for approval. • *Recommended* RF safety awareness training for all workers in this area. • Controlled areas with barriers and/or signage required in these area. • Do not walk in front of the antenna face or no loitering in this controlled area. • Individual MUST have full control over any area where the exposure levels exceed the limit.	 NOTICE signage shall be posted on the barriers/stanchion to prevent anyone from entering into the area (must be cordon off around the antennas - 4 posts /3 signs). Or must be posted in location that can be easily viewed by individuals that enter the areas of concerns.
• Operational of the source(s) or locations where RF exposure exceeded the Occupational Worker limit in accessible areas. Cat. | Occupational Worker | General Public **3** | **≥100%** | **≥500%** • Yellow zone is where the spatial average is above 100% of Occupational Worker limit.	• RF Safety Guideline/NIER report must be submitted to RFSO for approval. • Individual **<u>shall not</u>** enter and work in these areas without RS approval • Required RF safety training and access area is restricted only for authorized worker. • Controlled areas with barriers and signage required in these area. • Do not walk in front of the antenna face. • Require reduction of RF power and approval from Radiation Safety prior any work on the antennas.	 CAUTION signage shall be posted on the barriers/stanchion to prevent anyone from entering into the area (must be cordon off around the antennas - 4 posts /3 signs).
• Exposure will exceed exposure limit in accessible areas. Cat. | Occupational Worker | General Public **4** | **>500%** | **>1000%** • Red zone is where the time and spatial-averaged levels fall above 500% of Occupational Worker limit or is not feasible to prevent exposures.	• RF Safety Guideline/NIER report must be submitted to RFSO for approval. • MUST re-engineer site to reduce the EME fields. • **<u>No access allowed-Prohibited access!</u>** There must be controls to detect any unauthorized enter and terminate the RF energy in the area. • Lock out tag out of transmitters during the maintenance of the antenna system. • PPE is not sufficient. • Special RF training and PPE are required. (Applies only to individuals trained by RS).	  RF WARNING & Pacemaker DANGER signage or appropriate DANGER sign shall be posted very near radiation RF sources or if appropriate DANGER sign.