

## University Policy: Radio Frequency Safety

RF sources can be rooftop internet, cellular, and radio transmitters or antennas but can be specific in the research avenue for RF heating, ablation, physical therapy, neuro surgery, and electromagnetic field therapy. This policy applies to Radio Frequency (RF) users and the general public.

### 1. Training

#### FOR RF WORKERS:

- General RF user training (from Radiation Safety website) for RF workers or anyone frequently working around RF emitters.
- Site specific training forms completed by RF workers and returned to Radiation Safety.

#### FOR SPECIFIC LAB INSTALLATIONS (in addition to above):

- EHS Lab Safety Training is required (from EEM website)
- Site specific training conducted by the system manager (or designee)

### 2. Hazard analysis conducted by Radiation Safety (initially, and then as necessary) with assistance from the system manager (or designee)

- Inventory and document emitter locations (retain record)
- Evaluate and document potential risks of emitters with RF survey equipment (typically in percent of the Specific Absorption Rate (SAR))
- Implement signage/posting according to the Specific Absorption Rate (SAR) exposures possible (see tables on following page for advice on when to post)
  - occupation or public
  - whole body or extremity
- Check for emitter security and shielding where necessary

### 3. Public Safety: System managers will instruct RF workers on how to handle public safety




- Inform anyone with implanted metal or medical devices of possible hazards
- How to properly protect people of hazard zones by following SAR limits

### 4. Radiation Safety can provide support, technical advice, and will be available for emergency response.




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## Posting Requirements

### Limits for Occupational Exposure

Signage Level (% of FCC SAR Limit)	Signage Picture	Whole Body SAR in W/kg*	Hands, Wrists, Feet, and Ankles SAR Limit in W/kg*
<b>Warning</b> (> 1000%)		> 4.0	> 200.0
<b>Caution</b> (> 100% to < 1000%)		> 0.4 to < 4.0	> 20.0 to < 200.0
<b>Notice</b> (> 20% to < 100%)		> 0.08 to < 0.4	> 4.0 to < 20.0
<b>None</b> (0% to < 20 %)	No postings	< 0.08	< 4.0

### Limits for General Public/Uncontrolled Exposure

Signage Level (% of FCC SAR Limit)*	Signage Picture	Whole Body SAR in W/kg*	Hands, Wrists, Feet, and Ankles SAR Limit in W/kg*
<b>Warning</b> (> 1000%)		> 0.80	> 40.0
<b>Caution</b> (> 100% to < 1000%)		> 0.08 to < 0.80	> 4.0 to < 40.0
<b>Notice</b> (> 20% to < 100%)		> 0.016 to < 0.08	> 0.80 to < 4.0
<b>None</b> (0% to < 20 %)	No postings	< 0.016	< 0.80

\* Tables from FCC's OST/OET Bulletin 65 "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation" and FCC SAR limits from 47 CFR §1.1307, §1.1310, & §2.1093.