

Radiofrequency (RF) Radiation Awareness

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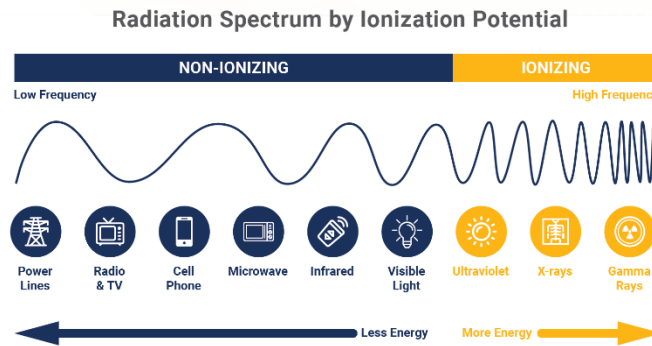
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The purpose of this Job Aid is to assist in the awareness of radiofrequency (RF) radiation, to better understand what it is, what to look for, the risks associated with RF, & how to protect yourself. Where conditions are not covered in this Job Aid, or if the job is not completely understood, the Advisor should safely stop the work and communicate their concerns to the necessary personnel on the jobsite.

What is RF Radiation?

Radiofrequency (RF) radiation, a type of non-ionizing radiation, is the energy used to transmit wireless information.

At low levels, it is not considered a hazard. But at the levels produced by telecommunications equipment, including radio, television, and cellular antennas, RF radiation can pose a health risk for workers.



What to Look for:

As demand for cellular and wireless services grows, more of these antennas are being placed on rooftops and sides of buildings.

Antennas that generate RF radiation come in different shapes & sizes and emit RF radiation in different directions.



1. Rectangular panel antennas or dish-shaped transmitting antennas generally send out RF radiation in one direction.
2. Cylindrical or rod-shaped antennas emit RF radiation in more than one direction up to 360 degrees.
3. Hidden antennas are designed to blend into their surroundings. They can be stand-alone (e.g., a flagpole) or a panel that blends into the side of a building, chimney, rooftop, or sign. These antennas are harder to identify and make it difficult to determine the RF radiation emitting direction.

What are the Risks?

- RF radiation is invisible.
- Power levels vary. The amount of RF radiation can be low when you start working & then spike to higher levels.
- Your risk increases the closer you are to the antenna and the longer you work in the RF radiation field. The RF environment our advisors are in is generally 200-300' above.
- RF radiation may interfere with medical devices (e.g., pacemakers), and strong RF fields can cause thermal burns and possible nerve damage.

How to Protect Yourself:

1. Ask questions.

- Are cellular antennas or other RF radiation generating antennas present?
- At a minimum, do your own visual assessment.

2. Follow instructions.

- When RF radiation is present, warning signs should be posted that include information on the hazard and a point of contact for information on the antenna.



- If you need to work within the RF field, the antenna owner should move or temporarily power down the device.
 - Confirm it's been powered down before proceeding.

3. Keep your distance.

- Avoid standing right in front of, or close to, antennas.
- If there are antennas where you are working or on buildings close by, make sure the antennas are not pointed directly toward your work area.
- At a minimum, stay 6 feet away from a single antenna or 10 feet away from a group of antennas.