Radiofrequency (RF) Radiation

Radiofrequency (RF) radiation is the energy used to transmit information wirelessly. Cellular, television, and other antennas located on roof tops, sides of buildings, news-gathering trucks, and other structures can give off levels of RF radiation that are harmful to workers.

Greg’s Story
Greg, a roofer, was making repairs to the penthouse roof of an office building. He soon developed a headache, and began to feel warm and dizzy. He leaned against a panel on the side of the chimney to take a break. Later, he noticed a red, painful burn mark on his arm. The panel Greg was working in front of and touched was a cellular antenna.

What steps could have been taken to prevent Greg’s symptoms and the burn?

Have you or anyone you know worked near antennas and become sick or suffered a burn? If so, what happened?

How can we stay safe today?
What will we do at the worksite to prevent exposure to RF radiation?

1. 
   
2. 

Remember This

➤ Before you begin work, ask your supervisor or the building manager if any RF antennas are present and for a copy of the current RF radiation survey results.

➤ Look around for antennas in your work area or nearby. They can be different shapes and sizes: rectangular panels, dish-shaped, cylindrical or rod-shaped, or disguised in a structure such as a chimney or flagpole.

➤ Look for posted signs and barriers, and follow the instructions.

➤ Stay at least 6 feet away from a single antenna or 10 feet away from a group of antennas.

➤ Assume an antenna is energized (“hot”) unless you de-energize it yourself. Do not touch a “hot” antenna as it can result in a serious burn, which may be more severe internally than it appears on the surface.

➤ Know the warning signs of exposure, such as a headache, dizziness, labored breathing, reddening of the skin, and suddenly feeling overheated. Leave the area right away if you think you are in danger or begin to feel symptoms.

OSHA Standard: General Duty Clause Section (5)(a)(1) of the
FCC Rules & Regulations: 47 CFR 1.1307(b), 1.1310, 2.1091, 2.1093; OET Bulletin 65

©2017, CPWR-The Center for Construction Research and Training. All rights reserved. CPWR is the research and training arm of NABTU. Production of this document was supported by cooperative agreement OH 009762 from the National Institute for Occupational Safety and Health (NIOSH). The contents are solely the responsibility of the authors and do not necessarily represent the official views of NIOSH.
Ask your supervisor or the building manager if cellular or other RF antennas are present.

Look for signs and barriers near your work area. Follow any instructions.

Keep your distance. Stay at least 6 feet away from a single antenna or 10 feet away from a group of antennas. Do not touch antennas; assume they are “hot.”