



# KCA TOOL BOX TALK: Preventing Burns Caused by Radio-frequency Radiation

Radio-frequency (RF) radiation is the energy used to transmit wireless information. 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 not only harmful to workers but can cause serious burns.

For example, RF radiation emanating from transmitters can induce electric currents in a cranes' cables due to the cables acting as antenna receptors to the radiation. This can cause severe burns by spark discharges from crane cables just before and after grasping the cable.

## Preventing RF Exposure:

- Isolate the crane hook from the crane cable and block assembly by an insulator or grounding the crane cable with a ground chain or wire.
- Wear proper PPE such as rubber-insert leather gloves, long sleeve shirts, safety helmets and safety glasses.
- Before starting work, ask your supervisor or the building manager if cellular or other RF antennas are present and get a copy of the current RF radiation survey results.
- Look around you to see if you can spot antennas in your work area or nearby; they can be rectangular panels, dish-shaped, cylindrical or rod-shaped (they may also be disguised in a stand-alone structure like a building chimney or a flag pole).
- Look for posted signs and barriers and follow the instructions.
- Avoid standing right in front of or close to an antenna and stay at least 6 feet away from a single antenna or 10 feet away from a group of antennas.
- Assume the antenna is energized or "hot" (touching a "hot" antenna can give a serious burn).
- Know the warning signs of RF radiation exposure, such as a headache, dizziness, labored breathing, reddening of the skin and suddenly feeling over heated; leave the area immediately if you feel symptoms.

For more information visit OSHA STANDARD: General Duty Clause Section (5)(a)(1) of the OSHA Act FCC RULES & REGULATIONS: 47 CFR 1.1307(b), 1.1310, 2.1091, 2.1093; OET Bulletin 65

### Signatures

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**Teamwork Improves Safety!**

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