

Take 5 for Safety

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BROOKHAVEN
NATIONAL LABORATORY

a passion for discovery



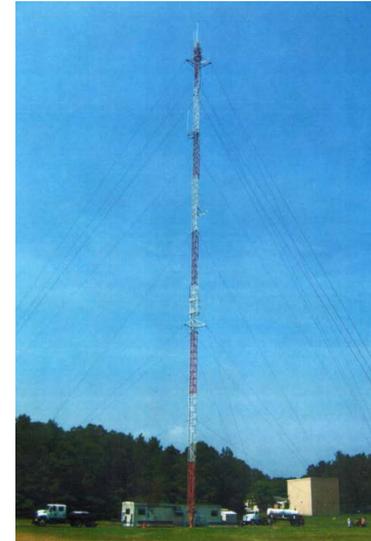
Electric Shock (Recordable, Reportable in ORPs and NTS) F&O Directorate, 11-12-14

Description:

- A BNL sub-contractor was making structural repairs to BNL's Met Tower. On 11-12-14, a structural worker at 210-feet received a minor electrical shock while replacing a tower diagonal bracing member. While inserting a bolt to secure the end of the replacement diagonal brace, the worker's right hand made contact with the wet outside surface of an existing electric power outlet box and he received an electrical shock to his hand and fingers. In addition, the investigation concluded a possible exposure to non-ionizing radiation above the OSHA guideline.

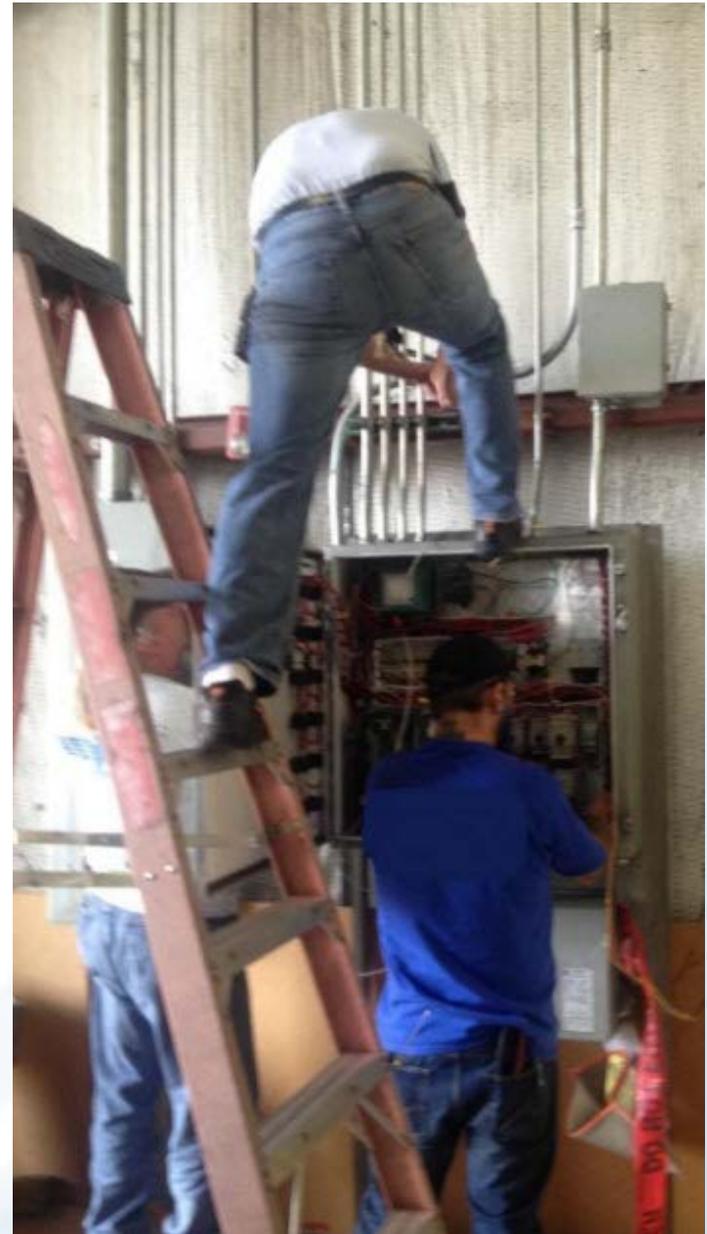
Cause(s): Causal Factors Only at This Time but Work Planning Procedures, Work Direction, QC, Communications, and Training Will Need Improvements

- In 2012, sub-contractor work to inspect and repair tower lights and 120-volt receptacles was not done in compliance with codes
- Responsibility for tower operations not clear after GARS transferred tower ownership to F&O in 2010
- RF hazards and controls were not identified or were poorly identified during F&O's 500A, Work Permit, HASP and PHA processes
- No electrical hazard was perceived in work-planning processes
- Sub-contractor identified RF hazard and controls in PHA but did not implement controls



Three heads are better than ...

- Sub-contractors at a Navy Base
- Only the person in the blue shirt was working on this job
- The person using a ladder incorrectly was just kibitzing



High Frequency Injuries

- Three main injury types at BNL:
 - Slips/Trips/ and Falls
 - Manual Lifting
 - Lacerations
- If workers do outdoor work during the winter, then consider using winter ice cleats
- If worker moves and lifts heavy equipment infrequently, then consider a lifting aid, such as a pallet jack with scissor lift
- If a worker encounters or handles sharp edges, then consider Kevlar or other types of cut resistant gloves

How Do Lessons From These Events Apply to Us?

- Work planning processes can be complex and can vary across groups, divisions, departments; however, C-AD management and supervisors must be familiar with processes and use them to ensure identification and control of all the hazards at C-AD
- Sub-contractors, new employees, users or other workers not familiar with C-AD's safety rules or change management processes need to be trained and qualified to work in C-AD facilities