



Alaska Face Facts

Occupational Injury Prevention Program

Section of Epidemiology

Division of Public Health

Department of Health and Social Services

September 2000

Laborer/rigger electrocuted during an aerial lift of equipment

SUMMARY

A 38-year old laborer/rigger was electrocuted when a cable attached to a helicopter contacted an overhead power transmission line. The laborer/rigger (the victim) and a coworker had completed their assignment of testing new foundation anchors, located below a set of three transmission lines energized to 69 kV. They had just finished moving and attaching rigging cables to two steel beams. The ground crew used a radio in a truck on a nearby access road to request the aerial lift. The transport staging area was 15-20 feet east of the north-south running transmission lines. A helicopter with an attached non-retractable 111-foot cable arrived and hovered. The wind direction was from the east, placing the helicopter upwind from the lines. As the helicopter maintained a heading nearly parallel to the lines, it descended to place the hook and 5-7 feet of the cable on the ground approximately 10 feet south of the load. The co-worker picked up the hook and brought it underneath the helicopter to the beams where the victim was holding the attached rigging cables. Once attached, the co-worker turned to move away from the load and the helicopter. He heard a crack after taking a few steps. He turned and saw the victim stagger away from the beams and collapse. Simultaneously, the helicopter crew heard a crack and saw a flash. The pilot moved the helicopter away from the lines, lifting the load and dropping it nearby. The co-worker then went to assist the victim. Unable to get any response, he ran to a truck to radio for help. Another co-worker standing near the truck went back to the victim and started CPR. The victim was transported to a local medical facility where he was pronounced dead.

Based on the findings of the investigation, to prevent similar occurrences, the employer should:

- **Ensure that all aerial lift staging areas are located outside a 20-foot safety zone around overhead power lines and are clearly marked;**
- **Ensure that an extended safety zone is used when aerial lifts cannot be done downwind of energized overhead power lines;**
- **Ensure that workers are provided with two-way radios for communicating with the helicopter pilot during aerial lifts;**
- **Ensure that a spotter is present to provide directions to the helicopter pilot during aerial lift operations and that they (the spotter and pilot) are familiar with both verbal commands and hand signals;**
- **Ensure that workers use insulated footwear and gloves while working near power lines;**
- **Ensure first aid plans minimize response times during emergencies;**

In addition, helicopter operators and the helicopter aviation industry should:

- **Consider using non-conductive cables when airlifting loads near overhead power lines;**
- **Consider developing and implementing safe operation guidelines for aerial lifts near overhead power lines.**

FACE reports can be viewed on the Occupational Injury Prevention Program website

<http://www.epi.hss.state.ak.us/programs/injury>

or

**Call or fax your request to:
907-269-8000 (phone) 907-562-7802 (fax)**