

Crane Power Line Safety Organization



Tel 202 -693- 2350
Fax 202-693-1648

OSHA Docket Office
Docket No. S-030
Department of Labor
200 Constitution Avenue NW
Room N-2625
Washington DC 20210

26 May 2004

Proposed Revision of Subpart N for cranes and derricks

We would like to suggest that the committee carefully consider the accident investigated by NIOSH under the FACE program and downloaded from their website at www.cdc.gov/niosh/face/reptmenu.html .

We downloaded all the reports that had "Cranes" and "power" and "lines" or "powerlines". These are detailed reports from 2 to 8 pages long on each incident.

- 97% of the incidents were caused by operator error.
- 70% of riggers would have been saved with an insulating link.

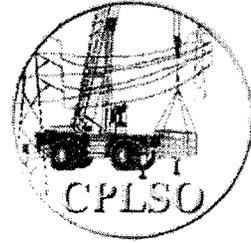
The well known adage says "If we do not learn from history we are forced to repeat the same mistakes". The suggested 'yellow zone' policy for training, power line moving and marking was used in the following incident with fatal results. The simple addition of an inexpensive insulating link would have saved this young man.

FACE 90-29

**Laborer Touching Suspended Cement Bucket Electrocutted When Crane Cable
Contacts 7200-Volt Powerline in North Carolina**

www.cranepowerlinesafety.org

The Marchioness Building, Commercial Rd., Bristol BS1 6TG. UK
Tel +[44] 117 9252300 Fax +[44] 117 9254555



INTRODUCTION

“On March 1, 1990, a 29-year-old male laborer was electrocuted when the crane cable suspending a 1-yard concrete bucket he was touching contacted a 7200-volt powerline. On March 6, 1990, Officials of the North Carolina Occupational Safety and Health Administration notified the Division of Safety Research of the incident and requested technical assistance. On March 28, 1990, two safety specialists from DSR traveled to the incident site to conduct an investigation. The DSR investigators reviewed the incident with the company safety director, and obtained photographs, diagrams of the incident site, and police reports.

The employer is a heavy construction company that specializes in power station, bridge, and wastewater treatment plant construction. The company employs 600 workers, including a safety director. The company has a comprehensive safety program and provides on-the-job training for all employees. New employees undergo a 6-day orientation period. Each week, a safety meeting is held on site for all company employees. Crew supervisors hold tailgate safety meetings daily at their respective work areas. The tailgate safety meetings include a hazard review for each task that the workers will perform that day. Each employee undergoes a drug test before being hired and is subject to random drug testing thereafter. The victim had received training in crane safety (including the hazards associated with overhead powerlines) on February 12, 1990.

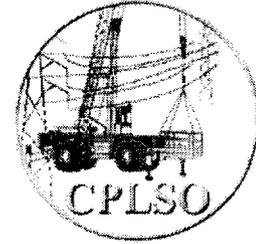
INVESTIGATION

The company was contracted in 1988 to construct a large addition that would upgrade an existing wastewater treatment plant. The victim's crew was pouring concrete for the back wall of an underground water holding tank that measured 20 feet long by 29 feet wide by 23 feet high. Prior to the start of construction on the holding tank, the company safety director contacted the local electrical utility and requested that they relocate a 7200-volt powerline at the site. The powerline presented a serious hazard, since a crane would be used to position a 1-yard bucket during the pouring of the concrete. Electrical utility engineers determined that the powerline could not be relocated because the adjacent swampy ground would not permit the proper anchoring of the utility poles. Instead, the powerline was covered with insulated line hoses in the vicinity of the worksite. In order to comply with OSHA regulations pertaining to clearances between cranes and powerlines, the safety director had markers placed in the ground that identified the spot where truck drivers would back the cement trucks for the unloading of the bucket. This action ensured that the crane boom would come no closer than 14 feet to the powerline,

www.cranepowerlinesafety.org

The Marchioness Building, Commercial Rd., Bristol BS1 6TG. UK
Tel +[44] 117 9252300 Fax +[44] 117 9254555

Crane Power Line Safety Organization



greater than OSHA's required minimum clearance distance of 10 feet. Because of subsequent damage caused by Hurricane Hugo, the insulated hoses were removed from the powerline so that the slack in the powerline could be adjusted. The insulated hoses were not replaced by electrical utility workers after the slack in the powerlines was adjusted.

On the day of the incident, the victim was working on the floor of the holding tank cleaning up spilled concrete. After the last bucket was poured, the truck driver cleaned the loading chute on the truck with a truck-mounted water hose. The victim joined the rest of the crew at ground level. When the driver finished cleaning the truck, he began to pull away. The supervisor called for him to stop and asked if the crew could use the water hose to clean the concrete bucket. The driver stopped the truck under the powerline. The supervisor signaled the crane operator to swing the bucket around to the truck. Without realizing the truck had been moved, the crane operator positioned the bucket behind the cement truck. The victim grasped the door handle on the bucket and pushed down to open it, causing the crane cable to contact the powerline. The electrical current traveled down the cable and through the bucket and victim to ground, causing his electrocution. The supervisor detected a pulse, but the victim was not breathing. The supervisor immediately began mouth-to-mouth resuscitation while one of the crew members summoned the emergency medical squad (EMS). The EMS transported the victim to the hospital where he was pronounced dead-on-arrival by the attending physician.”

The present decision not to mandate insulating links in the 'yellow zone' casts the burden of having needlessly killed his co-worker on the operator. If CDAC confirm their decision it will prove the second well known adage "What we do not learn from history is that we do not learn from history."

Yours sincerely,

Hugh Pratt
Chairman of Crane Power Line Safety Organisation
www.cranepowerlinesafety.org

www.cranepowerlinesafety.org

The Marchioness Building, Commercial Rd., Bristol BS1 6TG. UK
Tel +[44] 117 9252300 Fax +[44] 117 9254555