Surveillance data and investigative reports are maintained by NIOSH in a database. NIOSH researchers use this information to identify new hazards and case clusters. FACE information may suggest the need for new or revised regulations to protect workers. NIOSH publications are developed to highlight these high risk work situations and to provide safety recommendations. These publications are disseminated to target audiences and are available on the Internet through the NIOSH homepage or through the NIOSH publications office.

G1.2 New Jersey FACE Investigation Leads to Legislative Changes—Bost P

This presentation will explain the course of events that led to legislative changes following the electrocution of a lifeguard at a public swimming pool. On June 14, 1994, a twenty-year-old college student was working as a lifeguard at an apartment complex swimming pool. When he went into the pump room to adjust the chlorine flow, he died after contacted a pump motor that had been energized with 220 volts due to faulty wiring.

The NJ Department of Health & Senior Services, Fatality Assessment & Control Evaluation (FACE) Program was notified and conducted an investigation two weeks after the incident. Investigators found that the 20 year-old pump equipment had not been inspected or maintained for at least ten years and made recommendations to improve swimming pool electrical safety. Recognizing that this problem may exist at other public swimming pools, NJ FACE published a warning bulletin highlighting the incident and our recommendations. This bulletin was distributed to NJ public swimming pools by the local health departments during their sanitary inspections.

As a result of the FACE investigation and warning bulletin, a municipality changed their codes to require periodic inspections of swimming pools. In February 1996 two members of the NJ State Assembly introduced a bill to modify the state construction code establishing basic electrical standards for swimming pools. The bill was passed on February 10, 1999 requiring that all public swimming pools, hot tubs, and spas obtain an electrical certificate of approval. A licensed electrical contractor or testing agency would issue this certificate following an inspection of the pools bonding, grounding, and general electrical systems. A facility would not be allowed to legally open without obtaining this certificate.

G1.3 Youth Farm Worker is Killed in PTO Driveline Entanglement—Johnson WE, Rautiainen RH

In January 1999, a 17-year-old high school student working part-time for a dairy farmer was killed when his clothing was caught by the unshielded power take-off (PTO) driveline of an old grinder-mixer. He had been helping the farmer add sacks of feed supplement to ground corn in the mixer. The supplement hopper on this machine was not operational and the hammer mill opening was used instead. This opening was next to the unshielded driveline and a flywheel, which was disconnected and not rotating at the time. After having added the supplement, the farmer was closing the hammer mill cover. The youth was standing next to him, near the rotating unshielded PTO driveline. Suddenly the farmer heard a thump, then noticed that the boy had been caught and entangled around the driveline at the flywheel clutch. The idling tractor stalled from the force, and the youth died instantly from decapitation.

Iowa FACE investigators learned about the incident from a co-worker, who was alerted by a radio news report. Information was gathered from several sources including a site investigation. The NIOSH Division of Safety Research was also notified of this fatality by the United States Department of Labor, Wage and Hour Division, and this report was produced in collaboration with NIOSH FACE staff. The report was requested by an Iowa Senator to be used in a subcommittee on agricultural safety standards for youth farm workers.

G1.4 The NIOSH, OSHA, NATE Partnership for the Prevention of Injury to Telecommunication Tower Construction and Maintenance Workers—Casini VJ

The widespread use of wireless communications services has fueled the construction of towers to hold transmitting devices for cellular phones, personal communication services, and television and radio broadcast antennas. The Federal Communications Commission (FCC) estimates that at least 75,000 towers have been constructed in the United States, and industry groups indicate that 20,000 to 50,000 towers are erected each year. The Telecommunications Act of 1996 is expected to promote more tower construction to meet the increased demand for wireless communication services.

Based on an analysis of data from the Bureau of Labor Statistics' Census of Fatal Occupational Injuries, a minimum of 95 workers died during the construction or maintenance of telecommunication towers during the 6-year period 1992-1997. Falls accounted for the majority of deaths of workers involved in telecommunication tower construction or maintenance. Eighteen percent of the deaths were associated with tower collapse. The remainder of deaths occurred when workers were struck by objects, such as parts of equipment or towers. NIOSH has investigated 8 tower-related fatal incidents. Two of the case studies will be presented.

In an attempt to improve the safety and health of tower workers, OSHA established a Tower Task Force in 1997. NIOSH has been an active member of this task force and has made several key contributions to the task force's products.

NIOSH and OSHA, together with the National Association of Tower Erectors, have addressed several key issues affecting the safety and health of tower workers.

NIOSH input has been instrumental in the development of OSHA compliance directives, has disseminated safety information through trade magazines, and has developed preventive recommendations for tower owners, tower construction companies, and tower workers.

G1.5 Dissemination of Products From the Fatality Assessment and Control Evaluation (FACE) Program—Morton LL

NIOSH develops publications to highlight high-risk work situations discovered through the FACE surveillance and investigation efforts. These publications provide safety recommendations and are disseminated to targeted audiences through the DSR Information Management and Dissemination Activity (IMDA). They are also available through the NIOSH homepage or through the NIOSH Publications Office.

When FACE Hazard Alerts or Hazard IDs are completed, IMDA and FACE personnel work together to identify the most appropriate audiences for the receipt of these documents. Where possible, NIOSH sends publications directly to at-risk companies. If the number of companies is too large, NIOSH must rely on "information gatekeepers" such as trade associations, labor unions, professional societies, etc., to further disseminate the information to their members/constituencies. Interpersonal phone contact with officials in these gatekeeper organizations often yields ideas and insights about other organizations and audiences to target. Once the audiences are identified, IMDA builds and maintains mailing lists which are used by the NIOSH Publications Office to distribute the Alerts and other information products.

For example, in 1995 IMDA was asked to identify the most appropriate audience for the Alert entitled Request for Assistance in Preventing Injuries and Deaths of Loggers. With input from the Alert authors and based upon the recommendations found in the Alert, IMDA identified the appropriate audiences for receiving the Alert. Some of these audiences included federal and state regulatory agencies, trade associations, logging companies, master loggers, safety and health training institutes, trade journals and newsletters.

IMDA recently developed a FACE homepage which is part of the NIOSH website. This site provides access to all investigative case reports completed by NIOSH staff, as well as investigative reports submitted by the 15 states working under cooperative agreements with NIOSH.

Session: G2.0
Title: Work-Related Burn and Amputation Surveillance: A Snapshot in Time of the Surveillance Results of Colorado, Kentucky, Utah and Minnesota
Category: Special Session
Organized by the Traumatic Injury SENSOR State grantees
Moderator(s): Wayne Ball

G2.1 Experience of Kentucky SENSOR Occupational Burn Surveillance—Scheerer A, Struttmann T

Establishing the surveillance system for occupational burns in Kentucky began in October 1997. Before data collection could begin, it was necessary to put efforts into developing the questionnaire, refining methods, obtaining IRB approval and establishing a network to identify and report cases. Because there is no reporting requirement in Kentucky for occupational injuries, facilities needed to be recruited to voluntarily participate in the project. Recruitment of hospital burn units, emergency departments, outpatient clinics and a workers' compensation insurance company involved extensive communication through letters, phone calls and meetings. Several facilities declined to participate, mainly due to a history of treating few burn injuries or lack of staff availability. Currently, 25 facilities make up the reporting network. Follow-up phone interviews are conducted with the injured worker or the employer to obtain data about the work environment and how the burn occurred. Issues presenting challenges include facilities not reporting consistently or timely, and difficulty reaching the injured worker or employer by phone for an interview.

During 1998-1999, 314 cases were reported through the network. Ninety-three percent were treated on an outpatient basis, while 6% required hospitalization and 1% were fatal. The majority were thermal burns (64%), followed by chemical burns (16%), welding flash burns (9%) and electrical burns (6%). Restaurant workers made up a large portion of the cases with the industry category of eating and drinking places accounting for 28%; about 40% were due to hot grease.

G2.2 Work-Related Burn Surveillance Program in Utah—Marsden, RH

The purpose of this research project is to develop a complete registry of work-related burns in Utah, design and implement intervention activities, and ensure appropriate prevention activities are directed toward those industries identified as at risk.

Through surveillance activities, high risk industries, age groups, occupations, and environmental factors are being evaluated so that appropriate intervention strategies can be developed.

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ABSTRACTS

National Occupational Injury Research Symposium

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

National Institute for Occupational Safety and Health
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