

## Paul Elling, COM6303.E1, Exercise 5

- 1) Identify several situations in which employees were in danger on the job. Be creative in your research.

At ARCADIS, the company has maintained a culture of workplace safety through its Health and Safety department. Being in the realm of engineering, construction, and the environment, ARCADIS' clients expect the company to exhibit safe practices and achieve statistical measures that indicate the company's professional dedication to safety. This expectation fosters down to employees in a manner that they must place health and safety first and foremost in everything they do. The emphasis is so strong that employees are encouraged to pursue wise decisions when it comes to their health and safety at work or at home. After all, safety is a concern on the job, but it doesn't stop when employees leave the office or the field. Indeed, employees' families need to embrace the mantra of health and safety in order to improve their lives.

ARCADIS employees have found themselves in predicaments in the past on the job that truly were dangerous. In the one case, the danger was very serious, which was when someone, working on site, was struck by lightning, while holding a metal hook that was attached to a crane (ARCADIS, personal communication, March 25, 2010). The employee did not consider the risk he was taking, despite the warnings of thunder and lightning. He had worked in similar weather conditions in the past and made himself unaware of the danger. The danger inherent in lightning is that it is so powerful and can strike anywhere. Lightning is a commonplace weather phenomenon and "can be considered the most dangerous weather hazard that many people encounter each year" (Holle & Lopez, 1999, p. 2035). In another situation, an employee was sweeping off a

scaffold where light snow had fallen (ARCADIS, personal communication, March 25, 2010). Having worked on scaffolding for years, the employee was comfortable in high places and did not suspect the snow to be slippery. Ice and snow are hazards posed to people when they walk or drive. Driving in good conditions, whether for personal reasons or work-related reasons, can prove dangerous as well. In one situation, an ARCADIS employee had not adjusted his side view mirrors (ARCADIS, personal communication, March 18, 2010). Since he had driven the same truck for quite a while, the employee did not think to make adjustments to the mirrors prior to driving. Side view mirrors are an important aid for helping drivers see whether or not automobiles are driving beside them. Even with the help of side view mirrors, drivers still have problems with their blind spot. Ford Motor Company has worked to alleviate the problem by “installing side-view mirrors on its vehicles that show the blind spots in the outside upper corners” (Krisher, 2008, p. 1). Situations on the work sites can be dangerous, especially when the work involves excavations. As an employee was using an excavator and rigging devices to move a box containing scrap metal, he was concerned with getting the work done, not about the potential safety hazards (ARCADIS, personal communication, March 13, 2010). This employee had been operating the excavator and rigging devices for years and had never experienced an incident. Excavations can pose hazards to people, and they can unintentionally cause damage to existing infrastructure. “Damage to underground utilities in the U.S. has resulted in millions of dollars in financial loss and hundreds of deaths over the years” (Shively, 2006, p. 22). In a case involving a ladder, an employee saw that, if they reached a little, they could finish the current job without moving the ladder (ARCADIS, personal communication, March 11, 2010). This

employee happened to be a construction manager, who was well-versed in the organization's health and safety culture and policies. He communicates regularly to coworkers about the importance of health and safety, whether at work or on personal time. Ladders are of great benefit at work or in the home, but they are meant to be vertical aids, not horizontal ones. "Accidental falls from stepladders are responsible for tens of thousands of injuries in the US each year" (Seluga, Ojalvo, and Obert, 2007, p. 215). In another situation, an employee fell down stairs, as they did not see a small spot of ice on one of the steps (ARCADIS, personal communication, February 21, 2010). The employee was familiar with snowy and icy conditions, as they had always lived in a cold weather climate. He rarely ever fell due to ice. In one situation, danger became more real when a drilling subcontractor used a crane truck to perform maintenance on an injection well at a groundwater remediation site (ARCADIS, personal communication, August 21, 2009). As he was working, the crane came in contact with a power line. Power lines can present a hazard when people come in contact with them. According to a NIOSH report, "at least 154 workers died" from contacting power lines "over the 13-year period from 1992 to 2005" (as cited in Busick, 2007, p. 5). In another dangerous situation, an employee was in a manhole working on flow monitoring (ARCADIS, personal communication, July 23, 2009). The employee got out of the manhole in a hurry, when his air monitor alarm warned him of poor ventilation. An additional hazard of working in manholes is that they are in the middle of roads, which can "expose crews to traffic" and lead to "longer lane closures" (Roads & Bridges, 2009, p. 62). Manholes can prove to be problematic in different ways for employees if they are not prepared for the work setting.

2) What were the outcomes of these situations?

With ARCADIS employees, the reason to uphold a health and safety culture is to prevent injury and illness to themselves, their coworkers, their clients, and their families. Preventative actions, such as education and awareness of dangers in the workplace, can be the biggest factor in avoiding the consequences of poor decision-making. Employees are encouraged to perform the necessary activities rather than taking shortcuts in their daily work when it comes to safe practices. Unfortunately, despite the acknowledgement of health and safety being at the center of everything ARCADIS does, employees remain ignorant of safe practices, forget about them, or disregard safe practices altogether. It is the responsibility of everyone in the organization to uphold the values of the culture.

In the situation involving the employee, who was struck by lightning, it proved fatal as he was electrocuted (ARCADIS, personal communication, March 25, 2010). Not only was it tragic, but the situation demonstrated to employees that health and safety can be life-saving choices, whether they are work-related or natural conditions. Cherington states, "It is estimated that 100 people are killed and 1,000 more are injured by lightning each year" (as cited in Spengler, Connaughton, Zhang, and Gibson, 2002, p. 39).

Employees need to take the potential for lightning seriously in the work setting.

Lightning is a natural phenomenon that can strike during a storm, but people can prepare for it by heeding some precautions. For the employee sweeping off the scaffolding, he ended up plummeting to his death (ARCADIS, personal communication, March 25, 2010). He had, unfortunately, underestimated the potential for disaster standing on a slippery platform several stories in the air. Employees at ARCADIS are much more leery

of walking on ice or other slipper conditions now. The employee who had not adjusted his side view mirrors appropriately ended up getting into an accident, because he could not see his blind spot (ARCADIS, personal communication, March 18, 2010). The result of the accident was not serious, as the employee did not sustain injury. However, the inability to see blind spots has been a safety problem for anyone who drives as part of their employment. The employee, who was operating the excavator and rigging devices, experienced a clevis breaking and material fell, cracking the excavator's windshield (ARCADIS, personal communication, March 13, 2010). The employee was not injured, but he did put himself in harm's way. Both excavators and excavations can present dangerous job situations. When excavations happen under water, "soil conditions can change in minutes on the dig – faster than the weather" (Stewart, 2009, p. 24). In the case involving the employee using a ladder, he opted to get down from the ladder, move it, and climb back up to finish the job (ARCADIS, personal communication, March 11, 2010). Thus he thought about the potential risks in addition to remembering the organization's health and safety culture. Even when an employee uses good judgment with a ladder, they can still malfunction, considering "that over the past few years the government has recalled more than 30,000 ladders from various manufacturers" (Consumer Reports, 2009, p. 15). When the employee fell down the stairs, they ended up fracturing bones in their wrist (ARCADIS, personal communication, February 21, 2010). The employee did not think about falling, as walking down stairs is a normal activity that people are performing unconsciously all the time. Employees and people in general, should make sure they hold on to hand rails when going down stairs and not rush going down them. The crane that made contact with the power line caught fire and burned

completely, also causing damage to the power line (ARCADIS, personal communication, August 21, 2009). The employee operating the crane truck had moved away from the truck to safety prior to the truck catching on fire. Injury was prevented, but property damage happened that could have been avoided. The employee, who had been working in the manhole, strained his groin and went to urgent care, but not until after finishing the job (ARCADIS, personal communication, July 23, 2009). The pain was greater, because he had waited to seek help. Had he sought medical care when the incident happened and the initial pain appeared, the situation would have been improved.

- 3) Did the organizations receive any communication messages which warned of the impending danger?

ARCADIS prides itself on internal communication about health and safety as well as external presentation of its health and safety values. ARCADIS' Health and Safety department has employees who send out email messages to everyone in the organization. Likewise, other employees communicate about health and safety through verbal, written, and electronic communication. A core feature of the company across departments is the health and safety moment that happens at the beginning of every meeting. The health and safety moment involves an employee in the meeting giving a verbal presentation about a health and safety issue. The issue can be something that affected him or her, or someone they know, or it can be a carefully selected issue about which they choose to speak.

Although ARCADIS preaches the broad message of health and safety, the company needs employees to follow through with policies and procedures. The company does provide education on safety in the workplace. In each situation, employees could have used better judgment, but each incident was an isolated event. For instance, the

employee, who was struck by lightning, could have taken the weather forecast more seriously and held off working outside until the conditions improved (ARCADIS, personal communication, March 25, 2010). In this situation, the organization did receive communication in the form of weather forecasts. Again, the weather forecast could have been heeded in the case of the employee who fell off the scaffold (ARCADIS, personal communication, March 25, 2010). The employee was likely aware that winter weather could still happen; he was simply unconcerned that the conditions would impact him, even though he was attempting to clear the floor area of snow. “Sand may also be used on walkways to reduce the risk of slipping” (Safety Compliance Letter, 2009, p. 8). In any of the dangerous job situations, managers were likely under the assumption that the large amount of information provided about health and safety would cause employees to think through the situations and avoid potential hazards. Providing the organization with communication about the impending dangers just prior to them happening would have been very difficult, if not impossible, as the incidents happened very quickly. The experiences of these issues can serve to encourage ARCADIS to further develop policies and procedures to help employees communicate in the event similar circumstances happen again in the future.

4) Could any communication strategies have changed the outcome of these situations?

The purpose behind all communication about health and safety at ARCADIS is to encourage preventative actions. Whether communication is about incidents or established best practices, the goal is to educate employees of ARCADIS about the choices they have available to them. People have the option to avoid dangerous and

harmful situations by employing good health and safety practices. Oppositely, employees can disregard safe practices and deal with the consequences of the outcomes of situations. Any communication about health and safety will require employees to listen, read, and consider the advice or strategies that are presented to them.

The existing lack of communication strategies may not have done much for employees at the times of the situations. When there is a “lack of a defined plan to handle such” situations, it can lead to “confusion” (Gratz & Noble, 2006, p. 1190). The policies and procedures need to be reviewed for updates. Afterward, the most optimal communication strategy might be to continue educating employees about safe policies and procedures. In the area of excavation, it could be beneficial to pass out OSHA pocket cards for excavation and trenching. Since “excavating is recognized as one of the most hazardous construction operations...OSHA recently revised its construction excavation standards” (Professional Safety, 2005, p. 19). ARCADIS, as an organization, could adopt OSHA safety standards in addition to ones already subscribed to by the company. By carrying a pocket card in their wallets, employees have the information about thinking through work situations on them at all times. Another communication strategy is to provide significant initial training about safety to newly hired employees. In addition, by having periodic training sessions about safety, the company can reinforce the values of a healthy and safe working environment. During these training sessions, employees could participate in role play scenarios about how to handle dangerous situations on the job.



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