

NATF Redacted Operating Experience Report

Safety – Heat Illness

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Topic

Safety – Heat Illness

Description

An employee experienced a serious injury diagnosed as heat exhaustion. The evaluation determined the employee was not properly hydrated when work began because the symptoms occurred within the first hour of work.

Lessons Learned

1. **Proper hydration must begin days before physical activity.** The employee took part in several outdoor activities in temperatures over 100 degrees in the days prior to the incident.
2. **Acclimation to hot environments can take several days.** The incident occurred on the employee's first day as an apprentice. The Occupational Safety and Health Association highlights acclimatization as being a leading cause for heat illness based on a study of 25 incidents of heat-related illness in 2005. In almost half of the cases, the worker involved was on his or her first day of work; and in 80% of the cases, the worker involved had only been on the job for four or fewer days.
3. **Pre-workout supplements can have dehydrating affects.** The employee consumed pre-workout supplements on a routine basis, including the day prior to the incident, and used a pre-workout supplement before his workouts and a recovery supplement after. The ingredients in the pre-workout supplements (e.g., caffeine and creatine) have dehydrating affects (see WebMD at <http://www.webmd.com/diet/supplement-guide-creatine>). Consistently taking supplements with dehydrating effects could have also contributed to his dehydration.
4. **It is incumbent that all employees know the symptoms and stages of heat exhaustion so they can properly communicate and determine the level of care needed.** The employee didn't recognize the headache and chest pains as a symptom of severe heat exhaustion.
5. **Culture can affect a person's willingness to get care.** The employee presumed there would be negative consequences if he called an ambulance for heat exhaustion on his first day with the crew.

Actions Taken

- Provided coaching to the employee about the necessity of hydration, using the injury assistance program, and reporting injuries.
- Modified the company accident prevention manual, heat illness program, and training to ensure consistency on the direction given to workers about how to respond to heat-related illness.
- Communicated (awareness effort) that acclimation to hot environments can take several days and that pre-workout supplements can have dehydrating affects.
- Stressed to supervisors the importance of developing a culture of willingness to speak up.

Extent of Condition

Many of the utility's employees, especially those that work outdoors, are susceptible to heat exhaustion. Safety "stand downs" were held to communicate this event and the lessons learned.