LOUISIANA State FACE Program
Fatality Assessment & Control Evaluation

Heat-Related *Fatality Narrative*

INCIDENT FACTS

REPORT #: LA202402
REPORT DATE: June 25, 2024
INCIDENT DATE: July 11, 2022
WORKER: 24 years old
OCCUPATION: Archaeologist
SCENE: National forest
EVENT TYPE: Heat Stroke

Archaeologist Dies from Heat Stroke - Louisiana

SUMMARY

A 24-year-old archeologist died of heat stroke while conducting an archaeological survey in a national forest. It was her first day on the job. Her work required physically demanding shovel tests, hand-shoveling 1-ft square holes 3-ft in depth while gently screening earth and documenting results. Even in mild temperatures, this work is strenuous. The area was under a heat advisory that was first issued June 4 [IEM 2024]. The National Weather Service issues a heat advisory when the expected maximum heat index is ≥ 100°F for at least two days and nighttime temperatures are not expected to drop below 75°F [NOAA 2024].

The team met at 6:30 AM; topics included the heat, humidity, and temperature. The victim worked from 7:45 AM through 11:30 AM, resting after every two to three shovel tests, each taking about 15 minutes. After lunch, around 12:15 PM, a coworker noticed the victim appeared tired and was breathing heavily while walking up rocky hills, but attributed this to her lack of acclimatization.

At 1:30 PM, the coworker realized the victim needed to cool off, and attempted to move her to an air-conditioned vehicle, but couldn't. He helped her sit in a shaded area and went to cool the vehicle. During this time she walked off into the woods and collapsed. They attempted to cool her by pouring Gatorade on her and moved her to a shaded area. When she became unresponsive, 911 was called and CPR was performed. Paramedics pronounced her dead upon their arrival. At 2:15 PM the temperature was approximately 98°F, while the heat index was over 107°F. She worked six hours during a heat advisory without being acclimatized to the heat.

The employer was cited by the Occupational Safety and Health Administration (OSHA) with a General Duty Clause 5(a)(1) violation for exposing employees to excessive heat. Investigators found the employer did not have: a sufficient worker acclimatization program, a defined work-rest schedule, or defined cool shaded rest areas.

REQUIREMENTS

To better protect workers, employers need to implement a worker acclimatization program and a defined work-rest schedule as well as provide cool shaded rest areas.

RECOMMENDATIONS

Louisiana FACE investigators concluded that to help prevent similar occurrences, employers should:

- Develop a written heat-related illness prevention program that includes an acclimatization program for each worker at risk of heat-related illness, which gradually acclimatizes workers for two weeks or no less than five days [LDH 2024; NIOSH 2016].
- Provide enough breaks with adequate shaded areas for workers.
- Monitor workers for symptoms of heat-related illness during periods of heat stress.
- Modify work activities depending on forecasted heat risks [CDC 2024].

RESOURCES

CDC [2024]. CDC Newsroom: CDC Announces Important Advances in Protecting Americans From Heat.
LDH [2024]. Heat Related Illness: Data Dashboard and Guidance.
NIOSH [2016]. NIOSH Criteria Document: Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environments. Washington, DC: Centers for Disease Control and Prevention (CDC).
IEM [2024]. Iowa Environmental Mesonet. Iowa State University.
NOAA [2024]. Heat Watch Vs. Warning. Silver Spring, MD: National Weather Service (NWS).

This narrative was developed to alert employers and workers of a tragic incident and is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or the cause of the injury. Developed by LA State Fatality Assessment and Control Evaluation (LA FACE) Program. The LA FACE Program is supported in part by a grant from the National Institute for Occupational Safety and Health (NIOSH grant# 5U60OH010915).
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