



Alaska FACE Facts

Occupational Injury Prevention Program
Section of Epidemiology
Division of Public Health
Department of Health and Social Services

January 1999

Scrap Metal Cutter Dies from Injuries Sustained in Storage Tank Explosion

On July 28, 1998, a 29-year-old scrap metal cutter (the victim) died from injuries sustained in an explosion. At the time of the incident, the victim had been cutting a vehicle frame for salvage with a torch. He was working 8 to 10 feet from a 1500-gallon storage tank, which he and a co-worker had unloaded from a truck earlier that day. At the time of the explosion, the co-worker was working 10 to 15 feet away from the tank.

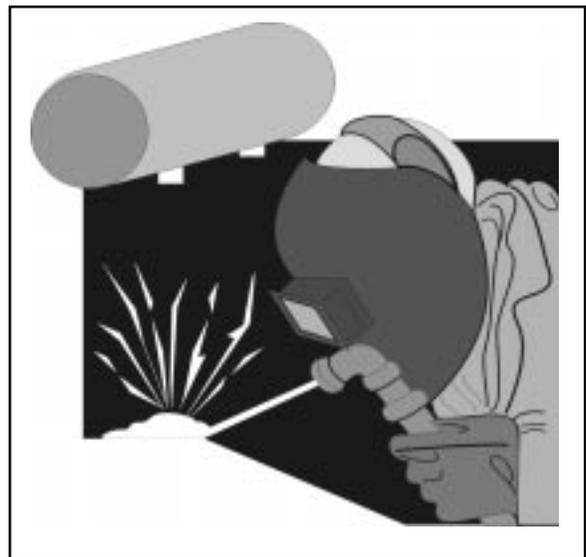
Weather was a contributing factor. Warm, sunny days preceding the explosion caused the temperature inside the tank to exceed the ambient or outside temperature, causing residual fuel to volatilize (change to a gaseous state) at a faster rate. Since fuel vapors are heavier than air, they begin collecting at the lowest level inside the tank and can escape from openings.

Escaping vapors from the tank were ignited by spatter from the cutting activities, causing the tank to explode. The victim was engulfed in flames, igniting his clothing and causing burns over 45% of his body. The co-worker extinguished the victim's burning clothing and helped him walk to the company's shop building. An office worker called 911. Emergency medical services transported the victim to a nearby medical center that transferred him to a medical center in Washington. He died 15 days later from complications associated with the burn injuries.

Based on the findings of the investigation, to prevent similar occurrences, employers should:

- **Develop, implement, and enforce a comprehensive safety program;**
- **Ensure a competent person inspects all areas where hot work will be done;**

- **Ensure workers are capable of recognizing and avoiding hazardous situations;**
- **Ensure all storage tanks are inspected, tested, and appropriately labeled prior to moving them;**
- **Ensure appropriate storage (e.g., location and position) of used tanks.**



**For more information or
a copy of this FACE report, contact the
Occupational Injury Prevention Office
(907) 269-8000
or visit our website**

<http://www.epi.hss.state.ak.us/programs/injury>