On January 29, 2009, an employee fell off a portable 8ft fiberglass stepladder while performing maintenance on a reefer semi-trailer. The victim was attempting to apply sealant to the top of a piece of plywood bolted to the semi-trailer when the employee fell off the ladder.

Description of Incident:

Alaska Occupational Safety and Health investigated the accident. On January 29, 2009, employees worked on a reefer semi-trailer in the maintenance shop. The refrigeration unit was removed from the front of the box semi-trailer and plywood was bolted over the hole. A mechanic and a truck driver positioned two portable step ladders, one of them damaged, in front of the semi-trailer in order to apply sealant on the plywood and semi-trailer seam. The truck driver climbed the damaged 8 foot step ladder to apply sealant to the top seam. The truck driver fell off the ladder onto the concrete floor and suffered severe injuries that caused his death. Although there were no eye witnesses, based on the investigation, it appears that the truck driver was standing on the top step of the damaged ladder when he fell. The employer did not provide ladder safety training.

ACCIDENT PREVENTION RECOMMENDATIONS:

Recommendation #1: Employers should ensure that work tools are not damaged.

Discussion: The investigation revealed that the ladder was damaged prior to the fall event. The original bottom horizontal leg brace had been replaced with wood, which had cracked. Other horizontal leg braces on the back of the ladder were dented and damaged. Safety labels had worn off the ladder. An increased safety factor can generally be obtained through using properly inspected and maintained tools, and by preventing employees from attempting to fix damaged or broken equipment.

Recommendation #2: Employers should conduct a general hazard assessment prior to beginning any job or work task.

Discussion: Prior to beginning any job or work task, the work site should be evaluated for potential hazards. In this incident, such an evaluation may have revealed the work task's requirement to reach higher than the capacity of both the ladder and the user.

Recommendation #3: Employers should consider the use of mobile scaffolding or other types of work platforms, instead of ladders.

Discussion: The use of a ladder inherently limited the possible work area of the victim. In addition, the worker was able to climb to the top step of the ladder to reach the work area. A wider and taller work area, more stable work platform, and reduced physical stress could be gained through the use of mobile scaffolding or other types of work platforms. In comparison to a ladder, a work platform allows a
worker to stand fully upright and use both hands for work procedures, which provides an additional safety factor.

An employer should have a written safety program which includes enforcement and discipline procedures to ensure that employees follow the employer’s safety requirements. The employer should take steps to discover employee violations and document disciplinary action taken.