NO. 3

FATAL FACTS

NEW MEXICO OSHA

Accident Type:	*Struck by*
Number of Fatalities:	*1*
Weather Conditions:	*Clear*
Type of Operation:	*Formation Fracturing*
Size of Work Crew:	*30*
Safety and Health Program in Effect?	*Yes*
Training and Education Provided?	*Yes*
Employee's Job Title:	*N2 Pump Operator Apprentice*
Age and Gender:	*21 Male*

BRIEF DESCRIPTION OF ACCIDENT

A crew was performing a stimulation formation fracturing job (frac job) on a well site. Upon completion of the first and second stages of the processes, nitrogen pumps were put into operation to push frac materials into the newly perforated casing. Soon after the operation began, one of the four nitrogen pumps lost its boost and the operator requested to go off-line until he could correct the problem. Shortly thereafter, employees reported hearing a loud "boom" which prompted a shut down of the operation and initiated procedures for accounting for personnel. All but one employee were accounted for. A supervisor phoned emergency personnel while employees attempted to locate the missing man. The missing employee was located and pulled from underneath a nitrogen pump located adjacent to an exploded pump unit. First aid and CPR were administered until emergency personnel arrived. Emergency personnel were unable to revive the employee.

FINDINGS

Among the equipment brought to the site for use was a vehicle-mounted nitrogen pumping unit that had been transferred from another facility and was in need of extensive repairs. No formal work order detailing the work to be performed was initiated; rather, a note was placed on the dry-erase board indicating repairs were needed. This "word of mouth" maintenance tracking method was normal shop practice.

The check valve was removed and its internal components emptied, with the intention of rebuilding it at a later date. At some point before maintenance completion, the hollow body of the valve was re-installed and the unit was released to field service.

INSPECTION RESULTS

As a result of the investigation, NM OSHA issued a citation for two violations of the General Duty Clause Section 50-9-5(A), NMSA 1978 (New Mexico Occupational Health and Safety Act).

ACCIDENT PREVENTION RECOMMENDATIONS

Implementation of procedures and a tracking system for maintenance activities to prevent release of defective equipment into field service.

Note: The case described here was selected as being representative of fatalities caused by improper work practices. No special emphasis or priority is implied nor is the case necessarily a recent occurrence. The legal aspects of the incident have been resolved, and the case is now closed.