



United States Department of the Interior



FISH AND WILDLIFE SERVICE
LAKE ANDES NATIONAL WILDLIFE REFUGE COMPLEX
38672 291st Street
LAKE ANDES, SOUTH DAKOTA 57356-6838
605-487-7603

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Wildland Fire Fatality and Entrapment Initial Report

THE FOLLOWING INFORMATION IS PRELIMINARY AND SUBJECT TO CHANGE

Submitted by: Mike Bryant

Agency: U.S. Fish and Wildlife Service

Phone: 605 487-7603 (w)

Position: Project Leader

Location: Lake Andes NWRC

Email: michael_j_bryant@fws.gov

1. General Information

Date of Event: 4/12/2006 *Time:* ~ 2:30 p.m.

Fire name, location, agency, etc.: New Holland prescribed burn and wildfire, near New Holland, South Dakota, U.S. Fish and Wildlife Service.

Number of personnel involved: 2

Number of Injuries: 2 (minor burns)

Number of Fatalities: 0

2. Fatalities (Not Applicable)

3. Fire-Related Information

Fuel Model: 3

Temperature: ~70F *RH:* ~28% *Wind:* ~12mph

Topography: flat

Fire size at time of the incident/accident: ~100 acres

Incident management at time of the incident/accident: type 4

Urban/Wildland intermix?: Yes

Cause of fire: escaped prescribed burn

4. Entrapment Information

Brief description of the accident: An unforecasted change in wind direction caused a prescribed fire to leave its control lines. Burn personnel were pulled off of the line and notified that it was now a wildfire. Engine crews were reorganized and assigned to initial attack.

Two firefighters in a Type 6 engine were performing direct attack on the flank of the wildfire when the truck motor quit. The engine failed to restart and flame impingement was immediate.

Both firefighters were in the cab of the truck. After a few seconds the flames subsided and both firefighters exited the engine. Fire shelters were not deployed.

Entrapment Description

Person trapped: With fire shelter

Burns/smoke injuries incurred while in fire shelter: Not Applicable

Burns/smoke injuries incurred while escaping entrapment: Yes

Burns/smoke injuries incurred while fighting fire: No

Fire shelter performed satisfactorily: N/A

Fire Shelter was available, but not used: Yes

Personal Protective Equipment Used

Fire shelter: No

Gloves: Yes

Protective Pants: Yes

Boots: Yes

Protective Shirt: Yes

Goggles: No

Face/neck protection: Yes

Hardhat: Yes

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New Holland Incident: 72-hour Report

Injured employees: firefighters (2)

Preliminary factual findings: The injured individual was participating as an Engine Boss on an escaped prescribed fire which had been converted to a wildfire. The engine was engaged in direct attack of the southern flank in tall grass. The fire overran the engine with the Engine Boss and another firefighter in the cab. Both firefighters were able to move from the engine to a safety zone after the passage of the initial flaming front. The Engine Boss received minor burns on his legs and arms, the second fire fighter received slight burns to his face, while moving from the engine.

Narrative: The Engine Boss and firefighter were assigned to a Type 6 engine engaged in the initial attack of the southern flank of the fire which was actively burning in tall grass. They were utilizing a rolling attack with the firefighter driving the engine and the Engine Boss working the hardline. The Engine Boss determined that it was time to disengage, stopped the engine to throw the line on, and then moved to engine cab and directed the firefighter to move through the green to a safety zone. The engine would not start, and the flaming front overran

the engine almost immediately. The Engine Boss waited for the flaming front to pass, and then led the firefighter through the black to a safety zone. The firefighters encountered significant residual heat while moving from the engine to the safety zone, and received minor burns. Both firefighters were wearing full PPE.

The interagency investigation team reviewed the fire scene and interviewed employees assigned to the prescribed fire and wildfire. The team has determined that this situation met the definition of entrapment.

Lessons Learned: Based upon the preliminary findings by the investigation team, the following Lessons Learned should be transmitted to all wildland firefighters for the remainder of the 2006 Fire Season:

1. Engine crews must identify and maintain adequate safety zones and escape routes in the event that an engine breaks down.
2. Engine cabs may be a safer option than shelter deployment in fast moving fires in tall grass.
3. Driving over areas with significant residual heat can result in vehicle malfunctions.
4. Wildfire qualifications and experience levels must be considered when making holding and contingency assignments for employees assigned to prescribed fires.
5. Prescribed fire contingency plans must realistically address options for worst case scenarios.

The report of the investigation team will be issued within 30 days.

DAN MORFORD
Team Leader