

Protective Action Implementation Lessons Learned

TRADE

*Emergency Management Issues
Special Interest Group
Annual Meeting*

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*Fluor Hanford
Gayla Aldridge, Manager
Project Emergency Preparedness*



Introduction

- Hanford implemented sheltering in place twice in the last two years
 - Both were in the 200 West Area
 - Involved approximately 1,500 personnel
 - Occurred during the summer
 - Lasted several hours
- Investigation and analysis identified several lessons learned



Introduction (continued)

- Protective action drills are performed annually, but similar issues had not been identified
 - Primarily due to the shorter length of time personnel are required to remain sheltered during drills
 - Personnel knowledge that a drill was being conducted



Typical Fire Drill?

EXPECT THE UNEXPECTED



Here Is What We Saw

- Some personnel sheltered in:
 - Small metal buildings (became very warm quickly)
 - Buildings without basic services such as restrooms, water, and communications
 - Automobiles
- Hanford Patrol restricted access and directed personnel to remain at the barricades, in their vehicles



Here Is What We Saw (continued)

- Implementation of not eating and drinking was inconsistent
- Personnel immediately adjacent to the 200 West Area were notified to shelter, but were not sure notice applied to them due to the wording of the message
- Personnel in remote locations did not have a plan on where to shelter



Here Is What We Saw (continued)

- Managers of affected facilities directed actions on their own without approval by the Incident Commander or Hanford Emergency Operations Center
- Facility management did not have enough information to determine if shutting down process-related ventilation was necessary



Here Is What We Did

- Revised procedures and training, issued a lessons learned
- Revised Automated Job Hazards Analysis and pre-job briefings to require identification of shelter facilities for remote personnel
- Established a process for providing information to potentially affected facilities
- Clarified initial protective action messages



Here Is What We Did (continued)

- Established eating and drinking policy during sheltering
- Revised ventilation procedures at hazardous facilities
- Identified buildings suitable for sheltering



Here Is What We Did (continued)

Location	Attributes/Amenities	Comments
2336W 2740W 2620W	Ventilation can be secured, restrooms, limited food supplies, drinking water, telephones, and computers are available	Optimum location for sheltering
MO-446	Ventilation can be secured, telephones and computers are available, drinking water available	No restrooms are available, temperatures quickly heat up or cool down with ventilation shutdown
2404-WB 2404-WC	Ventilation can be secured, telephone available	No restrooms or water are available, temperature and ALARA concerns
MO-444 Super HENC	Ventilation can be secured	No restrooms or water available, temperatures quickly heat up or cool down with ventilation shutdown



Conclusion

- Emergency preparedness programs must fully consider:
 - The need for precise instructions to all affected personnel
 - Information needed by personnel and management at affected facilities
 - Implications of long term sheltering of personnel
 - **Ensure provisions are in place to facilitate**

