



An Impact of 'Experts' and Past Success

Ted Giltz

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Ted Giltz is a member of the Volpentest HAMMER Training and Education Center in Richland Washington and was a member of the joint contractor causal analysis team that reviewed the accidental gun discharge event in August 2009. (HAMMER stands for Hazardous Materials Management and Emergency Response.) Ted has over 40 years of experience in the nuclear, quality and safety fields and is a Certified Manager through the National Management Association.

Currently, Ted is the manager of HAMMER's Radiation Safety and provides radiological safety and response training services to the Hanford Site contractors, Department of Energy and external customers such as the Department of Defense, National Guard, regional emergency first responders and other Federal and State agencies.



What is HAMMER?

- Volpentest HAMMER Training and Education Center.
 - HAMMER stands for Hazardous Materials Management and Emergency Response
- HAMMER is managed and operated by Mission Support Alliance (MSA) for the U.S. Department of Energy.
- Located in southeastern area of Washington state



- HAMMER specializes in blended learning :
 - ✓ Hands-on Realistic Training
 - ✓ Computer-based/Web-based
 - ✓ Distance Learning
 - ✓ Simulations/Mock-ups
 - ✓ Classroom Instruction



HAMMER Campus

The 80-acre HAMMER campus includes life-size training props and settings where workers can train in a clean, safe environment.





WMD Training In Progress

- PNNL is funded by the Dept. of State, DHS, and other agencies to provide this training at HAMMER
- Prepares international border security officers and U.S. Customs personnel.
- Course provides materials to detect, identify, and interdict the illicit movements of materials, commodities, and components associated with the development or deployment of Weapons of Mass Destruction (WMD).





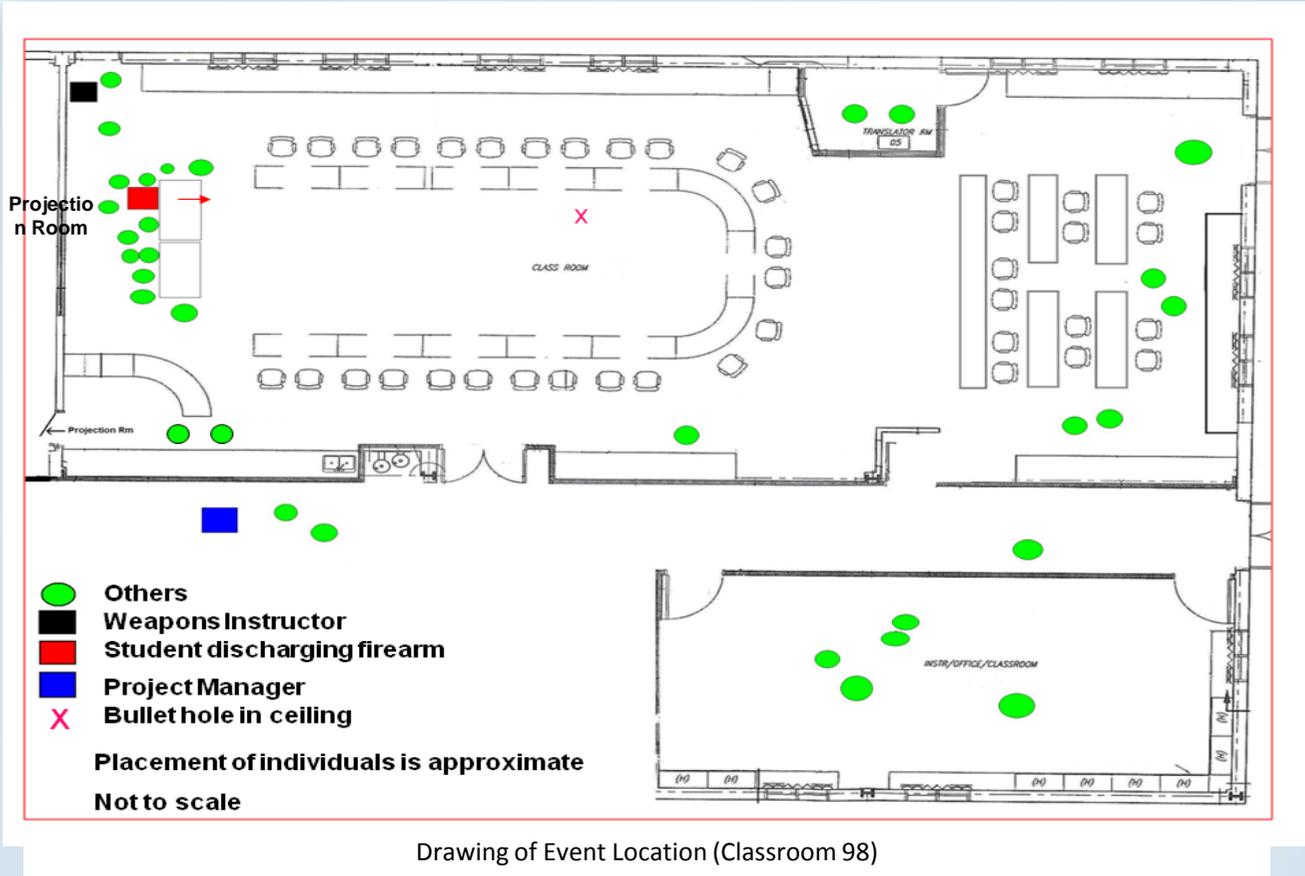
What Happened

- Final day of a 5-day International Border Security Training course.
- After a concealed weapons demonstration students were allowed to view and inspect the displayed weapons that were believed to be empty or props.
- One student unintentionally discharged a handgun manufactured by Kimber
- **No injuries occurred as a result of the weapon discharging but.....**





Event Location





Key Facts

- Since 1997 the Deputy Sheriff had performed same demo over 200 times.
- Not clear that weapons were not props.
- Personnel were aware of the demo and assumed that it had been evaluated and “ok’d”
- Prohibited items accepted as OK by PNNL and HAMMER
- Unclear understanding of responsibilities



Kimber Handgun



Causal Analysis

- Sheriff routine changed for this demo
- Personnel assumed Sheriff was the 'expert' and didn't question. Influenced by 'Performing official duties' and Halo Effect.
- Gun safety protocol inadequate
- *Lacked clear understanding of 10 CFR 851 roles, authorities, responsibilities and accountabilities.*





Causal Analysis (cont.)

Understanding of Worker Safety and Health Program unclear/incorrect.

- Neither PNNL's WHSP nor MSA WHSP specifically contemplates the situation existing at HAMMER.
- The Team concluded that Battelle failed to provide, and HAMMER staff failed to require, sufficient detail in the SOW to disclose the totality of risks that needed to be controlled or mitigated.
 - HAMMER applied a graded approach - had reviewed use of outdoor props and display materials
 - PNNL had not reviewed because it was off the PNNL campus



Human Performance Factors

Past success reduced rigor and questioning attitude

- Didn't understand who was responsible under 10 CFR 851 – paperwork repeatedly duplicated without critical review and was focused on the financial processes.
- Did not go to either organization's safety personnel for review
- Did not get a security review
- 10 CFR 851 Firearm's safety requirements
- Prohibited items accepted as normal





Halo Effect

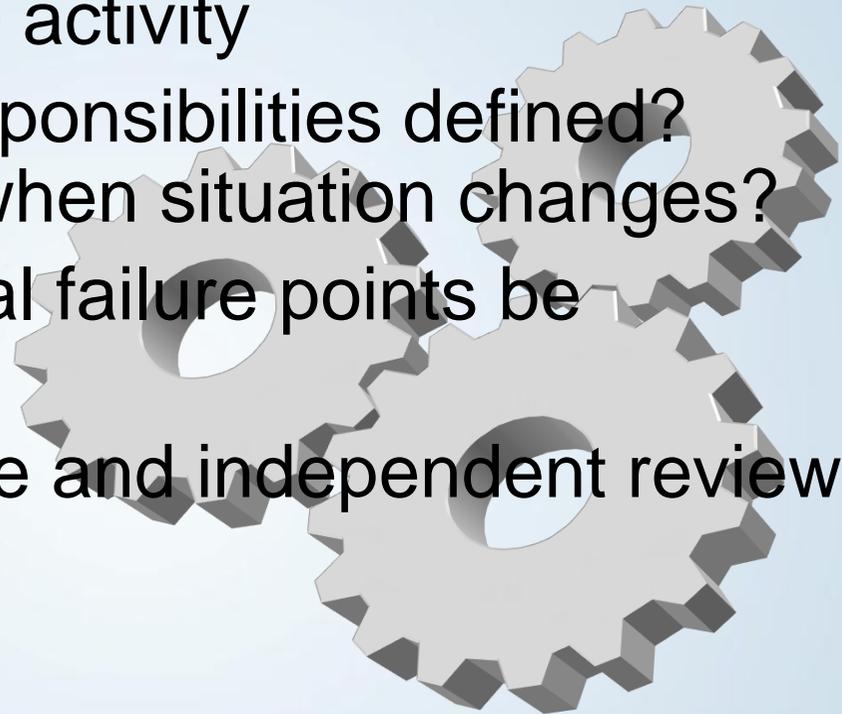
The Halo Effect and the associated inaccurate perceptions of the hazards that the concealed weapons demonstration created were experienced by multiple well-trained personnel at PNNL and the HAMMER facility.

- This mindset contributed to the failure of many barriers that might have precluded an event that was set in motion by the changes in the preparation process that the Deputy Sheriff normally followed and the lack of a safety check on the firearms he intended to use in the demonstration.



Take Away

- Is your SOW adequate? Understand scope of work, method of delivery, and hazards associated with the activity
- Clear roles and responsibilities defined? Who is contacted when situation changes?
- When should critical failure points be checked?
- Questioning attitude and independent review





Results

- Significant improvements in training safety and hazard identification have been implemented at HAMMER. Additional definition of activities, hazards, and mitigations is required by acceptance process.
- PNNL issued PAAA Office Letter. The letter identifies deficiencies with PNNL's implementation of a number of firearms safety program elements.
- The Enforcement Letter also acknowledges the thoroughness of PNNL's response to the discharge event and the measures that were put in place to eliminate opportunities for recurrence.