Idaho National

Laboratory

# The 1998 TRA 648 Carbon Dioxide Fatality 2022 DOE/EFCOG Fire Protection Workshop Idaho Falls

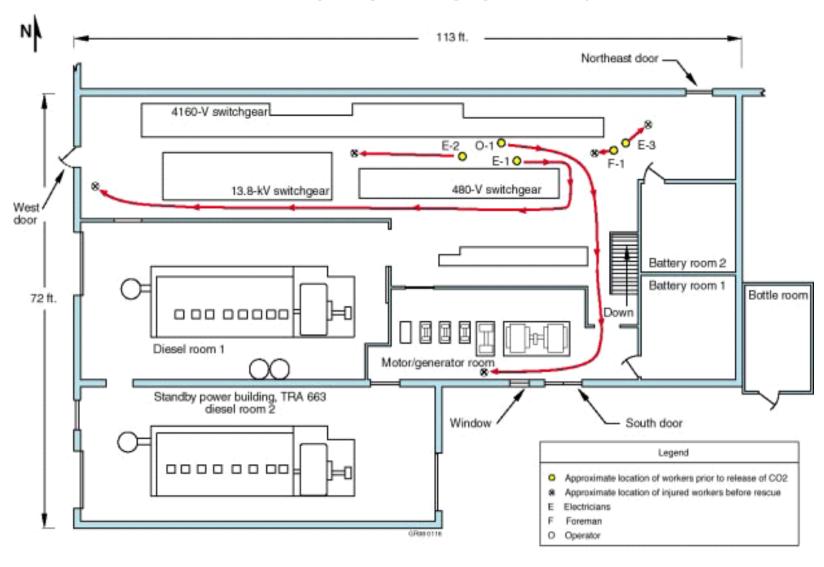
Michael J. Cates
Division Director F&SS
Chief Brady K. Austin
INL Fire Department



- July 28,1998, Work order and outage request to perform breaking testing for that night.
- Formal pre-job brief to occur at 1700, break for supper and start work at 1800 CO2 system impaired at panel prior to 1800.



## TRA 648 Floor Plan









- Type A Accident Investigation
- Evaluation at University of Utah
- "Supplemental Response"
- Popular Science
- BBC Recreation
- Civil Lawsuit



When I think back at where we were -- starting our trek of safety excellence in the mid-late 90s, we were in a compliance-mode mindset. ISMS requires us to recognize and mitigate hazards - good compliance.

That's where we were...



- NFPA 12 has gone through numerous changes thanks to Mike Cates
- Dispatch is now a PSAP to include Active 911
- Ability to send all available INL resources
- State Communications for mass causality and additional resources
- Possibility of 8 medical helicopters in the area
- Fire Department is briefed to all high hazard work before it begins to determine standby



- Manpower change from 4 Firefighters to 5 on an Engine Company
- Response model change from 1 BC, 1 Engine, 1 ambulance to 2 BC, 2 Engines, 2 ambulances
- Added ALS providers (Paramedics)
- Additional ALS equipment: video laryngoscopes, Lucas Devices, ventilators, pneumatic suctions, Lifepak 15, thermal imaging cameras, additional heart medications, jump bags and Oxygen on engines and command units.



#### Future of the Fire Department

- Additional Paramedics
- Gaining additional experience, with a variety of patients, through clinicals, ambulance ride time, and ALS interfacility transports
- Critical Care Transport Paramedic (CCTP) with updated vents
- Point of Care Ultrasound (POCUS)
- Meet FEMA Resource Typing on All Apparatus
- Additional fire station between Advance Test Reactor Complex (ATR)
   & Naval Reactor Facility (NRF) for faster response times
- Center for Public Safety Excellence (CPSE) Accreditation for Individual
   & Department
- Commission on Accreditation of Ambulance Services (CAAS)



Battelle's Safe Conduct of Research Principles are in place to make clear that accidents and injuries can be avoided through a set of purposeful actions. We value the safety legacy we create and learning never stops.

Employee involvement is an ISMS guiding principle at INL.

VPP requires a stretch for excellence. A highly reliable organization does not stop at compliance based, we go above and beyond what regulations require to ensure a safe and healthful workplace. A safety and health stretch for excellence, including management and employee leadership, hazard identification and mitigation utilizing more effective controls (i.e., elimination or engineering) is part of INL's culture and DNA.



#### **Questions?**

