



**NTSB** National Transportation Safety Board

---

*Office of Railroad, Pipeline &  
Hazardous Materials Investigations*

# Survival Factors

# Emergency Response Timeline

- 11:23 a.m. first 911 call
- 11:32 a.m. fire department dispatched
- 11:37 a.m. responders began arriving
- 12:05 p.m. patient transportation began
- 12:05 p.m. relief engineer was extricated
- 12:16 p.m. operating engineer was extricated
- 1:30 p.m. emergency response completed

# Conclusion

The emergency response was timely and effective.

# Crew Extrication



Crew seats

# Crew Extrication



# Conclusion

Because all cab compartment doors were inoperable and the windows were not designed to be easily removable from either the inside or the outside, the engineers could not exit the locomotive nor could the emergency responders enter the locomotive in a timely manner.

# Access to the Locomotive Cab



# Locomotive Regulation

- FRA regulations
- AAR standard



# Passenger Car Regulations

- FRA passenger car regulations
  - Emergency window exits
  - Rescue access windows



**NTSB**