



NATIONAL TRANSPORTATION SAFETY BOARD  
**Investigative Hearing**

Norfolk Southern Railway general merchandise freight train 32N  
derailment with subsequent hazardous material release and fires,  
in East Palestine, Ohio, on February 3, 2023

<b>GROUP</b>	<b>D</b>
<b>EXHIBIT</b>	
65	

Agency / Organization

**Federal Railroad Administration**

Title

**Excerpts from Federal Railroad Administration,  
Office of Research and Development, Final Report  
DOT/FRA/ORD-07/27: Tank Car Vent and Burn  
Process Study: Phase II**

## **Excerpts from DOT/FRA/ORD-07/27: Tank Car Vent and Burn Process Study: Phase II**

### **Recommendations**

- Incident commanders should use the Vent and Burn Checklist, as shown in Appendix A.
- Incident commanders should use the Vent and Burn Flow Chart or process map, as shown in Appendix B.
- Incident commanders should use the Vent and Burn Database as a valuable resource as they prepare for a vent and burn event.
- Incident commanders should use the Vent and Burn Report Form, as shown in Appendix D, to document the important variables and events surrounding a vent and burn incident. This form should then be filed with the AX Subcommittee of the Tank Car Committee and to the AAR/RSI Tank Car Safety Research Project in order to build a comprehensive database of vent and burn events.

**Vent and Burn Checklist Excerpts:**

**Damage Assessment**

Is tank car being impinged upon by fire?	Yes		Close to Fire		No	
Are contents of tank car burning?	Yes				No	
Is tank car venting continuously?	Yes				No	
Is shell rupture imminent?	Yes		Possible		No	
Is tank damaged?	Yes		Somewhat		No	
Has tank specification and construction material been determined?	Yes				No	
Is ambient temperature cold enough to cause brittle fracture?	Yes		Possible		No	

**Location/Environment/Site Assessment**

Is the tank close to other tank cars?	Yes		Somewhat		No	
Is the tank near buildings or structures?	Yes		Somewhat		No	
Is tank near habitation?	No		Within .025 mile		Within 0.5 mile	
Have inhabitants been evacuated?	Yes		In process		No	
Is excavation of burn pit possible?	No		Within .025 mile		Within 0.5 mile	
Is accident scene close to water sources?	No		Within .025 mile		Within 0.5 mile	
Will windspeed and direction produce dangerous product fallout?	Yes		Somewhat		No	

**Product Considerations**

Is product combustible?	Yes				No	
Is product polymerization a possibility?	Yes				No	
Will controlled release exceed toxicity levels?	Yes				No	
Will products of combustion exceed toxicity levels?	Yes				No	
What is the permeability of the soil?	High		Medium		Low	
What is the viscosity of the product?	High		Medium		Low	

## Vent and Burn Flow Chart Excerpts:

