



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>	
5	

Agency / Organization

**Norfolk Southern Railway**

Title

**Hazardous Materials Incident Reports to  
PHMSA, Forms 5800.1, February 24, 2023**



U.S. Department of Transportation  
Research and Special Programs Administration

# Hazardous Materials Incident Report

Form Approval OMB No. 3137-0039

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 2137-0039. The filling out of this information is mandatory and will take 96 minutes to complete.

## INSTRUCTIONS

Submit this report to the Information Systems Manager, U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Office of Hazardous Materials Safety, DHM-63, Washington, D.C. 20590-0001. If space provided for any item is inadequate, use a separate sheet of paper, identifying the entry number being completed. Copies of this form and instructions can be obtained from the Office of Hazardous Materials Website at <http://hazmat.dot.gov>. If you have any questions, you can contact the Hazardous Materials Information Center at 1-800-HMR-4922 (1-800-467-4922) or online at <http://hazmat.dot.gov>.

## PART I - REPORT TYPE

1. Incident Id: X-2023030186

2. This is to report: A

## PART II - GENERAL INCIDENT INFORMATION

3. Date of Incident:  
02/03/2023

4. Time of Incident (use 24-hour time):  
21:30

5. Enter National Response Center Report Number  
(if applicable):  
1359227

6. If you submitted a report to another Federal DOT agency, enter  
the agency and report number:

7. Location of Incident:

City: EAST PALESTINE  
County: COLUMBIANA  
State: OH  
Zip Code: (if known): 44413

Street Address/Mile Marker/Yard Name/Airport/Body of Water/River Mile:  
MP PC48.7

8. Mode of Transportation: Rail

9. Transportation Phase: In Transit

10. Carrier/Reporter:

Name: NORFOLK SOUTHERN CORPORATION  
Street: 1200 PEACHTREE ST NE  
City: ATLANTA  
State: GA  
Zip Code: 30309-3579

Federal DOT Id Number:

Hazmat Registration Number:

11. Shipper/Offeror:

Name: Oxy Vinyls  
Street: 2400 Miller Cutoff  
City: LA PORTE  
State: TX  
Zip Code: 77571

Waybill/Shipping Paper: 384298

Hazmat Registration Number:

12. Origin (if different from shipper address)

Street:  
City:  
State:  
Zip Code:

13. Destination:

Street: 130 Porcupine Rd  
City: PEDRICKTOWN  
State: NJ  
Zip Code: 08067

14. Proper Shipping Name of Hazardous Material: VINYL CHLORIDE, STABILIZED

15. Technical/Trade Name: VINYL CHLORIDE, STABILIZED

16. Hazardous Class/Division: Flammable Gas

17. Identification Number: (E.g. UN2764, NA 2020) UN1086

18. **Packing Group:** (if applicable)

19. **Quantity Released:** (Include Measurement Units) 178300 Gas - Pound

20. **Was the material shipped as a hazardous waste?** False  
If yes, provide the EPA Manifest Number:

21. **Is this a Toxic by Inhalation (TIH) material?** False  
If yes, provide the Hazard Zone:

22. **Was the material shipped under an Exemption, Approval, or Competent Authority Certificate?** False  
If yes, provide the Exemption, Approval, or CA number:

23. **Was this an undeclared hazardous materials shipment?** False

**PART III - PACKAGING INFORMATION**

24. **Check Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:**  
Tank Car

25. **See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident.**  
Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in part VI.

What Failed: - 144-Pressure Relief Valve or Device - Reclosing; 144-Pressure Relief Valve or Device - Reclosing  
How Failed: - 313-Vented; 313-Vented  
Causes of Failure: - Commodity Polymerization; Fire, Temperature, or Heat

26a. **Provide the packaging identification markings, if available.**

Identification Markings: 105J300W

(Examples: 1A1/Y1.4/150/92/USA/RB/93/RL, UN31H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

26b. **For Non-bulk, IBC, or non-specification packaging, if identification markings are incomplete or unavailable, see instructions and complete the following:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Packaging Type:  
Material of Construction:  
Head Type (Drums only):

Packaging Type:  
Material of Construction:

27. **Describe the package capacity and the quantity:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Package Capacity:  
Amount in Package:  
Number in Shipment:  
Number Failed:

Package Capacity:  
Amount in Package:  
Number in Shipment:  
Number Failed:

28. **Provide packaging construction and test information, as appropriate:**

Manufacturer: TRIN  
Serial Number: TILX402025  
Material of Construction: (if Tank Car, CTMV, Portable Tank, or Cylinder)  
Design Pressure: (if Tank Car, CTMV, Portable Tank)  
Shell Thickness: 0.56 INCH (if Tank Car, CTMV, Portable Tank)  
Head Thickness: 0.56 INCH (if Tank Car, CTMV)  
Service Pressure: (if Cylinder)  
If valve or device failed:

Manufacture Date:  
Last Test Date:

Type:  
Model:  
Manufacturer:

29. **If the packaging is for Radioactive Materials, complete the following:**

Packaging Category:  
Packaging Certification:  
Certification Number:  
Nuclide(s) Present:  
Activity:  
Critical Safety Index:

Transport Index:

**PART IV – CONSEQUENCES**

**30. Result of Incident (check all that apply):**

- Spillage:  - Fire:  True
- Explosion:  - Material Entered Waterway/Storm Sewer:  True
- Vapor (Gas) Dispersion:  True - Environmental Damage:  True
- No Release:  False

**31. Emergency Response: The following entities responded to the incident: (Check all that apply)**

- Fire/EMS Report #:  True unavailable
- Police Report #:  True unavailable
- In-house cleanup:
- Other Cleanup:  True

**32. Damages Was the total damage cost more than \$500? True**

- If yes, enter the following information: (If no, go to question 33.)
- Material Loss: \$ 440,000.00
  - Carrier Damage: \$ 375,000.00
  - Property Damage: \$ 250,000.00
  - Response Cost: \$ 5,000,000.00
  - Remediation/Cleanup Cost: \$ 1,250,000.00
- (See damage definitions in the instructions)*

**33a. Did the hazardous material cause or contribute to a human fatality? False**

- If yes, enter the number of fatalities resulting from the hazardous material:
- Employees:
  - Responders:
  - General Public:

**33b. Were there human fatalities that did not result from the hazardous material? False**

If yes, how many?

**34. Did the hazardous material cause or contribute to personal injury? False**

If yes, enter the number of injuries resulting from the hazardous material:

**Hospitalized (Admitted Only):**

- Employees:
- Responders:
- General Public:

**Non-Hospitalized:**

*(e.g.: On site first aid or Emergency Room observation and release)*

- Employees:
- Responders:
- General Public:

**35. Did the hazardous material cause or contribute to an evacuation? True**

- If yes, provide the following information:
- Total number of general public evacuated: 2000
  - Total number of employees evacuated: 0
  - Total evacuated: 2000
  - Duration of the evacuation: 100

**36. Was a major transportation artery or facility closed? False**

If yes, how many?

**37. Was the material involved in a crash or derailment? False**

- If yes, provide the following information:
- Estimated speed (mph):
  - Weather conditions:
  - Vehicle overturned?
  - Vehicle left roadway/track?

**PART V - AIR INCIDENT INFORMATION (please refer to S 175.31 to report a discrepancy for air shipments)**

**38. Was the shipment on a passenger aircraft?**

If yes, was it tendered as cargo, or as passenger baggage?

**39. Where did the incident occur (if unknown, check the appropriate box for the location where the incident was discovered)?**

**40. What phase(s) had the shipment already undergone prior to the incident? (Check all that apply)**

- Shipment had not been transported
- Transported by air (first flight)
- Transport by air (subsequent flights)
- Initial transport by highway to cargo facility
- Transfer at sort center/cargo facility

## PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE

- Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

### Describe:

1. X-2023030186: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. TILX402025 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
2. X-2023030187: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. GATX95098 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
3. X-2023030188: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80235 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
4. X-2023030189: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80179 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
5. X-2023030190: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80370 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
6. X-2023030191: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. UTLX205907 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
7. X-2023030192: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. SHPX211226 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
8. X-2023030193: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. DOWX73168 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.

## PART VII - RECOMMENDATIONS/ACTIONS TAKEN TO PREVENT RECURRENCE

- Where you are able to do so, suggest or describe changes (such as additional training, use of better packaging, or improved operating procedures) to help prevent recurrence. Provide recommendations for improvement to hazardous materials transportation beyond the control of your individual company. Continue on additional sheets if necessary.

### Describe:

NO COMMENTS PROVIDED.

## PART VIII – CONTACT INFORMATION

Contact's Name:	Robert Wood
Contact's Title:	System Manager Hazardous materials
Business Name and Address:	Norfolk Southern 650 West Peachtree St, NW ATLANTA GA 30308
E-mail Address:	Robert.Wood2@nscorp.com
Telephone Number:	(800) 453-2530
Fax Number:	
Hazmat Registration Number:	062922550108E
Date:	02/24/2023
Preparer is:	Carrier



U.S Department of Transportation  
Research and Special Programs Administration

# Hazardous Materials Incident Report

Form Approval OMB No. 3137-0039

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## INSTRUCTIONS

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## PART I - REPORT TYPE

1. **Incident Id:** X-2023030186  
2. **This is to report:** A

## PART II - GENERAL INCIDENT INFORMATION

3. **Date of Incident:** 02/03/2023  
4. **Time of Incident (use 24-hour time):** 21:30

5. **Enter National Response Center Report Number (if applicable):** 1359227  
6. **If you submitted a report to another Federal DOT agency, enter the agency and report number:**

7. **Location of Incident:**  
City: EAST PALESTINE  
County: COLUMBIANA  
State: OH  
Zip Code: (if known): 44413  
Street Address/Mile Marker/Yard Name/Airport/Body of Water/River Mile:  
MP PC48.7

8. **Mode of Transportation:** Rail  
9. **Transportation Phase:** In Transit

10. **Carrier/Reporter:**  
Name: NORFOLK SOUTHERN CORPORATION  
Street: 1200 PEACHTREE ST NE  
City: ATLANTA  
State: GA  
Zip Code: 30309-3579  
Federal DOT Id Number: Hazmat Registration Number:

11. **Shipper/Offeror:**  
Name: Oxy Vinyls  
Street: 2400 Miller Cutoff  
City: LA PORTE  
State: TX  
Zip Code: 77571  
Waybill/Shipping Paper: 384296  
Hazmat Registration Number:

12. **Origin (if different from shipper address)**  
Street:  
City:  
State:  
Zip Code:

13. **Destination:**  
Street: 130 Porcupine Rd  
City: PEDRICKTOWN  
State: NJ  
Zip Code: 08067

14. **Proper Shipping Name of Hazardous Material:** VINYL CHLORIDE, STABILIZED  
15. **Technical/Trade Name:** VINYL CHLORIDE, STABILIZED  
16. **Hazardous Class/Division:** Flammable Gas  
17. **Identification Number:** (E.g. UN2764, NA 2020) UN1086  
18. **Packing Group:** (if applicable)

- 19. Quantity Released:** (Include Measurement Units) 177600 Gas - Pound
- 20. Was the material shipped as a hazardous waste?** False  
If yes, provide the EPA Manifest Number:
- 21. Is this a Toxic by Inhalation (TIH) material?** False  
If yes, provide the Hazard Zone:
- 22. Was the material shipped under an Exemption, Approval, or Competent Authority Certificate?** False  
If yes, provide the Exemption, Approval, or CA number:
- 23. Was this an undeclared hazardous materials shipment?** False

### PART III - PACKAGING INFORMATION

**24. Check Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:**

Tank Car

**25. See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident.**

Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in part VI.

- What Failed: - 144-Pressure Relief Valve or Device - Reclosing; 144-Pressure Relief Valve or Device - Reclosing  
How Failed: - 313-Vented; 313-Vented  
Causes of Failure: - Commodity Polymerization; Fire, Temperature, or Heat

**26a. Provide the packaging identification markings, if available.**

Identification Markings: 105J300W

(Examples: 1A1/Y1.4/150/92/USA/RB/93/RL, UN311H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

**26b. For Non-bulk, IBC, or non-specification packaging, if identification markings are incomplete or unavailable, see instructions and complete the following:**

<b>Single Package or Outer Packaging:</b>	<b>Single Package or Inner Packaging (if any):</b>
-------------------------------------------	----------------------------------------------------

Packaging Type: Material of Construction: Head Type (Drums only):	Packaging Type: Material of Construction:
-------------------------------------------------------------------------	----------------------------------------------

**27. Describe the package capacity and the quantity:**

<b>Single Package or Outer Packaging:</b>	<b>Single Package or Inner Packaging (if any):</b>
-------------------------------------------	----------------------------------------------------

Package Capacity: Amount in Package: Number in Shipment: Number Failed:	Package Capacity: Amount in Package: Number in Shipment: Number Failed:
----------------------------------------------------------------------------------	----------------------------------------------------------------------------------

**28. Provide packaging construction and test information, as appropriate:**

Manufacturer: TRIN	Manufacture Date:
Serial Number: OCPX80179	Last Test Date:
Material of Construction: (if Tank Car, CTMV, Portable Tank, or Cylinder)	
Design Pressure: (if Tank Car, CTMV, Portable Tank)	
Shell Thickness: 0.56 INCH (if Tank Car, CTMV, Portable Tank)	
Head Thickness: 0.56 INCH (if Tank Car, CTMV)	
Service Pressure: (if Cylinder)	
If valve or device failed:	
Type:	
Model:	
Manufacturer:	

**29. If the packaging is for Radioactive Materials, complete the following:**

Packaging Category:	
Packaging Certification:	
Certification Number:	
Nuclide(s) Present:	Transport Index:
Activity:	
Critical Safety Index:	

**PART IV – CONSEQUENCES**

**30. Result of Incident (check all that apply):**

- Spillage:  - Fire:  True
- Explosion:  - Material Entered Waterway/Storm Sewer:  True
- Vapor (Gas) Dispersion:  True - Environmental Damage:  True
- No Release:  False

**31. Emergency Response: The following entities responded to the incident: (Check all that apply)**

- Fire/EMS Report #:  True unavailable
- Police Report #:  True unavailable
- In-house cleanup:
- Other Cleanup:  True

**32. Damages Was the total damage cost more than \$500? True**

- If yes, enter the following information: (If no, go to question 33.)
- Material Loss: \$ 440,000.00
  - Carrier Damage: \$ 375,000.00
  - Property Damage: \$ 250,000.00
  - Response Cost: \$ 5,000,000.00
  - Remediation/Cleanup Cost: \$ 1,250,000.00
- (See damage definitions in the instructions)*

**33a. Did the hazardous material cause or contribute to a human fatality? False**

- If yes, enter the number of fatalities resulting from the hazardous material:
- Employees:
  - Responders:
  - General Public:

**33b. Were there human fatalities that did not result from the hazardous material? False**

If yes, how many?

**34. Did the hazardous material cause or contribute to personal injury? False**

If yes, enter the number of injuries resulting from the hazardous material:

**Hospitalized (Admitted Only):**

- Employees:
- Responders:
- General Public:

**Non-Hospitalized:**

*(e.g.: On site first aid or Emergency Room observation and release)*

- Employees:
- Responders:
- General Public:

**35. Did the hazardous material cause or contribute to an evacuation? True**

- If yes, provide the following information:
- Total number of general public evacuated: 2000
  - Total number of employees evacuated: 0
  - Total evacuated: 2000
  - Duration of the evacuation: 100

**36. Was a major transportation artery or facility closed? False**

If yes, how many?

**37. Was the material involved in a crash or derailment? False**

- If yes, provide the following information:
- Estimated speed (mph):
  - Weather conditions:
  - Vehicle overturned?
  - Vehicle left roadway/track?

**PART V - AIR INCIDENT INFORMATION (please refer to S 175.31 to report a discrepancy for air shipments)**

**38. Was the shipment on a passenger aircraft?**

If yes, was it tendered as cargo, or as passenger baggage?

**39. Where did the incident occur (if unknown, check the appropriate box for the location where the incident was discovered)?**

**40. What phase(s) had the shipment already undergone prior to the incident? (Check all that apply)**

- Shipment had not been transported
- Transported by air (first flight)
- Transport by air (subsequent flights)
- Initial transport by highway to cargo facility
- Transfer at sort center/cargo facility



## PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE

- Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

### Describe:

1. X-2023030186: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. TILX402025 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
2. X-2023030187: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. GATX95098 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
3. X-2023030188: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80235 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
4. X-2023030189: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80179 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
5. X-2023030190: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80370 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
6. X-2023030191: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. UTLX205907 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
7. X-2023030192: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. SHPX211226 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
8. X-2023030193: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. DOWX73168 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.

## PART VII - RECOMMENDATIONS/ACTIONS TAKEN TO PREVENT RECURRENCE

- Where you are able to do so, suggest or describe changes (such as additional training, use of better packaging, or improved operating procedures) to help prevent recurrence. Provide recommendations for improvement to hazardous materials transportation beyond the control of your individual company. Continue on additional sheets if necessary.

### Describe:

NO COMMENTS PROVIDED.

## PART VIII – CONTACT INFORMATION

Contact's Name:	Robert Wood
Contact's Title:	System Manager Hazardous materials
Business Name and Address:	Norfolk Southern 650 West Peachtree St, NW ATLANTA GA 30308
E-mail Address:	Robert.Wood2@nscorp.com
Telephone Number:	(800) 453-2530
Fax Number:	
Hazmat Registration Number:	062922550108E
Date:	02/24/2023
Preparer is:	Carrier



U.S Department of Transportation  
Research and Special Programs Administration

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2. **This is to report:** A

## PART II - GENERAL INCIDENT INFORMATION

<p>3. <b>Date of Incident:</b> 02/03/2023</p> <p>5. <b>Enter National Response Center Report Number (if applicable):</b> 1359227</p> <p>7. <b>Location of Incident:</b>                                            City: EAST PALESTINE                                            County: COLUMBIANA                                            State: OH                                            Zip Code: (if known): 44413          Street Address/Mile Marker/Yard Name/Airport/Body of Water/River Mile:          MP PC48.7</p> <p>8. <b>Mode of Transportation:</b> Rail</p> <p>9. <b>Transportation Phase:</b> In Transit</p> <p>10. <b>Carrier/Reporter:</b>                                            Name: NORFOLK SOUTHERN CORPORATION                                            Street: 1200 PEACHTREE ST NE                                            City: ATLANTA                                            State: GA                                            Zip Code: 30309-3579          Federal DOT Id Number: _____</p> <p>11. <b>Shipper/Offeror:</b>                                            Name: Oxy Vinyls                                            Street: 2400 Miller Cutoff                                            City: LA PORTE                                            State: TX                                            Zip Code: 77571          Waybill/Shipping Paper: 384138</p> <p>12. <b>Origin (if different from shipper address)</b>                                            Street:                                            City:                                            State:                                            Zip Code:</p> <p>13. <b>Destination:</b>                                            Street:                                            City:                                            State:                                            Zip Code:</p> <p>14. <b>Proper Shipping Name of Hazardous Material:</b> VINYL CHLORIDE, STABILIZED</p> <p>15. <b>Technical/Trade Name:</b> VINYL CHLORIDE, STABILIZED</p> <p>16. <b>Hazardous Class/Division:</b> Flammable Gas</p> <p>17. <b>Identification Number:</b> (E.g. UN2764, NA 2020) UN1086</p> <p>18. <b>Packing Group:</b> (if applicable)</p>	<p>4. <b>Time of Incident (use 24-hour time):</b> 21:30</p> <p>6. <b>If you submitted a report to another Federal DOT agency, enter the agency and report number:</b></p> <p>Hazmat Registration Number: _____</p> <p>Hazmat Registration Number: _____</p>
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- 19. Quantity Released:** (Include Measurement Units) 178150 Gas - Pound
- 20. Was the material shipped as a hazardous waste?** False  
If yes, provide the EPA Manifest Number:
- 21. Is this a Toxic by Inhalation (TIH) material?** False  
If yes, provide the Hazard Zone:
- 22. Was the material shipped under an Exemption, Approval, or Competent Authority Certificate?** False  
If yes, provide the Exemption, Approval, or CA number:
- 23. Was this an undeclared hazardous materials shipment?** False

### PART III - PACKAGING INFORMATION

**24. Check Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:**

Tank Car

**25. See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident.**

Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in part VI.

- What Failed: - 144-Pressure Relief Valve or Device - Reclosing; 144-Pressure Relief Valve or Device - Reclosing
- How Failed: - 313-Vented; 313-Vented
- Causes of Failure: - Commodity Polymerization; Fire, Temperature, or Heat

**26a. Provide the packaging identification markings, if available.**

Identification Markings: 105J300W

(Examples: 1A1/Y1.4/150/92/USA/RB/93/RL, UN311H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

**26b. For Non-bulk, IBC, or non-specification packaging, if identification markings are incomplete or unavailable, see instructions and complete the following:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Packaging Type:  
Material of Construction:  
Head Type (Drums only):

Packaging Type:  
Material of Construction:

**27. Describe the package capacity and the quantity:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Package Capacity:  
Amount in Package:  
Number in Shipment:  
Number Failed:

Package Capacity:  
Amount in Package:  
Number in Shipment:  
Number Failed:

**28. Provide packaging construction and test information, as appropriate:**

Manufacturer: TRIN  
Serial Number: GATX95098  
Material of Construction: (if Tank Car, CTMV, Portable Tank, or Cylinder)  
Design Pressure: (if Tank Car, CTMV, Portable Tank)  
Shell Thickness: 0.56 INCH (if Tank Car, CTMV, Portable Tank)  
Head Thickness: 0.56 INCH (if Tank Car, CTMV)  
Service Pressure: (if Cylinder)

Manufacture Date:  
Last Test Date:

If valve or device failed:  
Type:  
Model:  
Manufacturer:

**29. If the packaging is for Radioactive Materials, complete the following:**

Packaging Category:  
Packaging Certification:  
Certification Number:  
Nuclide(s) Present:  
Activity:  
Critical Safety Index:

Transport Index:

**PART IV – CONSEQUENCES**

**30. Result of Incident (check all that apply):**

- Spillage:
- Explosion:
- Vapor (Gas) Dispersion:  True
- No Release:  False
- Fire:  True
- Material Entered Waterway/Storm Sewer:  True
- Environmental Damage:  True

**31. Emergency Response: The following entities responded to the incident: (Check all that apply)**

- Fire/EMS Report #:  True unavailable
- Police Report #:  True unavailable
- In-house cleanup:
- Other Cleanup:  True

**32. Damages Was the total damage cost more than \$500? True**

- If yes, enter the following information: (If no, go to question 33.)
- Material Loss: \$ 440,000.00
  - Carrier Damage: \$ 375,000.00
  - Property Damage: \$ 250,000.00
  - Response Cost: \$ 5,000,000.00
  - Remediation/Cleanup Cost: \$ 1,250,000.00
- (See damage definitions in the instructions)*

**33a. Did the hazardous material cause or contribute to a human fatality? False**

- If yes, enter the number of fatalities resulting from the hazardous material:
- Employees:
  - Responders:
  - General Public:

**33b. Were there human fatalities that did not result from the hazardous material? False**

If yes, how many?

**34. Did the hazardous material cause or contribute to personal injury? False**

If yes, enter the number of injuries resulting from the hazardous material:

**Hospitalized (Admitted Only):**

- Employees:
- Responders:
- General Public:

**Non-Hospitalized:**

*(e.g.: On site first aid or Emergency Room observation and release)*

- Employees:
- Responders:
- General Public:

**35. Did the hazardous material cause or contribute to an evacuation? True**

- If yes, provide the following information:
- Total number of general public evacuated: 2000
  - Total number of employees evacuated: 0
  - Total evacuated: 2000
  - Duration of the evacuation: 100

**36. Was a major transportation artery or facility closed? False**

If yes, how many?

**37. Was the material involved in a crash or derailment? False**

- If yes, provide the following information:
- Estimated speed (mph):
  - Weather conditions:
  - Vehicle overturned?
  - Vehicle left roadway/track?

**PART V - AIR INCIDENT INFORMATION (please refer to S 175.31 to report a discrepancy for air shipments)**

**38. Was the shipment on a passenger aircraft?**

If yes, was it tendered as cargo, or as passenger baggage?

**39. Where did the incident occur (if unknown, check the appropriate box for the location where the incident was discovered)?**

**40. What phase(s) had the shipment already undergone prior to the incident? (Check all that apply)**

- Shipment had not been transported
- Transported by air (first flight)
- Transport by air (subsequent flights)
- Initial transport by highway to cargo facility
- Transfer at sort center/cargo facility

## PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE

- Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

### Describe:

1. X-2023030186: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. TILX402025 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
2. X-2023030187: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. GATX95098 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
3. X-2023030188: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80235 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
4. X-2023030189: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80179 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
5. X-2023030190: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80370 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
6. X-2023030191: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. UTLX205907 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
7. X-2023030192: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. SHPX211226 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
8. X-2023030193: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. DOWX73168 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.

## PART VII - RECOMMENDATIONS/ACTIONS TAKEN TO PREVENT RECURRENCE

- Where you are able to do so, suggest or describe changes (such as additional training, use of better packaging, or improved operating procedures) to help prevent recurrence. Provide recommendations for improvement to hazardous materials transportation beyond the control of your individual company. Continue on additional sheets if necessary.

### Describe:

NO COMMENTS PROVIDED.

## PART VIII – CONTACT INFORMATION

Contact's Name:	Robert Wood
Contact's Title:	System Manager Hazardous materials
Business Name and Address:	Norfolk Southern 650 West Peachtree St, NW ATLANTA GA 30308
E-mail Address:	Robert.Wood2@nscorp.com
Telephone Number:	(800) 453-2530
Fax Number:	
Hazmat Registration Number:	062922550108E
Date:	02/24/2023
Preparer is:	Carrier



U.S Department of Transportation  
Research and Special Programs Administration

# Hazardous Materials Incident Report

Form Approval OMB No. 3137-0039

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 2137-0039. The filling out of this information is mandatory and will take 96 minutes to complete.

## INSTRUCTIONS

Submit this report to the Information Systems Manager, U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Office of Hazardous Materials Safety, DHM-63, Washington, D.C. 20590-0001. If space provided for any item is inadequate, use a separate sheet of paper, identifying the entry number being completed. Copies of this form and instructions can be obtained from the Office of Hazardous Materials Website at <http://hazmat.dot.gov>. If you have any questions, you can contact the Hazardous Materials Information Center at 1-800-HMR-4922 (1-800-467-4922) or online at <http://hazmat.dot.gov>.

## PART I - REPORT TYPE

1. **Incident Id:** X-2023030186  
2. **This is to report:** A

## PART II - GENERAL INCIDENT INFORMATION

<p>3. <b>Date of Incident:</b> 02/03/2023</p> <p>5. <b>Enter National Response Center Report Number (if applicable):</b> 1359227</p> <p>7. <b>Location of Incident:</b>                                            City: EAST PALESTINE                                            County: COLUMBIANA                                            State: OH                                            Zip Code: (if known): 44413          Street Address/Mile Marker/Yard Name/Airport/Body of Water/River Mile:          MP PC48.7</p> <p>8. <b>Mode of Transportation:</b> Rail</p> <p>9. <b>Transportation Phase:</b> In Transit</p> <p>10. <b>Carrier/Reporter:</b>                                            Name: NORFOLK SOUTHERN CORPORATION                                            Street: 1200 PEACHTREE ST NE                                            City: ATLANTA                                            State: GA                                            Zip Code: 30309-3579          Federal DOT Id Number: _____</p> <p>11. <b>Shipper/Offeror:</b>                                            Name: Oxy Vinyls                                            Street: 2400 Miller Cutoff                                            City: LA PORTE                                            State: TX                                            Zip Code: 77571          Waybill/Shipping Paper: 384297</p> <p>12. <b>Origin (if different from shipper address)</b>                                            Street:                                            City:                                            State:                                            Zip Code:</p> <p>13. <b>Destination:</b>                                            Street: 130 Porcupine Rd                                            City: PEDRICKTOWN                                            State: NJ                                            Zip Code: 08067</p> <p>14. <b>Proper Shipping Name of Hazardous Material:</b> VINYL CHLORIDE, STABILIZED</p> <p>15. <b>Technical/Trade Name:</b> VINYL CHLORIDE, STABILIZED</p> <p>16. <b>Hazardous Class/Division:</b> Flammable Gas</p> <p>17. <b>Identification Number:</b> (E.g. UN2764, NA 2020) UN1086</p> <p>18. <b>Packing Group:</b> (if applicable)</p>	<p>4. <b>Time of Incident (use 24-hour time):</b> 21:30</p> <p>6. <b>If you submitted a report to another Federal DOT agency, enter the agency and report number:</b></p> <p>Hazmat Registration Number: _____</p> <p>Hazmat Registration Number: _____</p>
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- 19. Quantity Released:** (Include Measurement Units) 177250 Gas - Pound
- 20. Was the material shipped as a hazardous waste?** False  
If yes, provide the EPA Manifest Number:
- 21. Is this a Toxic by Inhalation (TIH) material?** False  
If yes, provide the Hazard Zone:
- 22. Was the material shipped under an Exemption, Approval, or Competent Authority Certificate?** False  
If yes, provide the Exemption, Approval, or CA number:
- 23. Was this an undeclared hazardous materials shipment?** False

### PART III - PACKAGING INFORMATION

**24. Check Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:**

Tank Car

**25. See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident.**

Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in part VI.

- What Failed: - 144-Pressure Relief Valve or Device - Reclosing; 144-Pressure Relief Valve or Device - Reclosing
- How Failed: - 313-Vented; 313-Vented
- Causes of Failure: - Commodity Polymerization; Fire, Temperature, or Heat

**26a. Provide the packaging identification markings, if available.**

Identification Markings: 105J300W

(Examples: 1A1/Y1.4/150/92/USA/RB/93/RL, UN311H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

**26b. For Non-bulk, IBC, or non-specification packaging, if identification markings are incomplete or unavailable, see instructions and complete the following:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Packaging Type:  
Material of Construction:  
Head Type (Drums only):

Packaging Type:  
Material of Construction:

**27. Describe the package capacity and the quantity:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Package Capacity:  
Amount in Package:  
Number in Shipment:  
Number Failed:

Package Capacity:  
Amount in Package:  
Number in Shipment:  
Number Failed:

**28. Provide packaging construction and test information, as appropriate:**

Manufacturer: TRIN  
Serial Number: OCPX80235  
Material of Construction: (if Tank Car, CTMV, Portable Tank, or Cylinder)  
Design Pressure: (if Tank Car, CTMV, Portable Tank)  
Shell Thickness: 0.56 INCH (if Tank Car, CTMV, Portable Tank)  
Head Thickness: 0.56 INCH (if Tank Car, CTMV)  
Service Pressure: (if Cylinder)

Manufacture Date:  
Last Test Date:

If valve or device failed:  
Type:  
Model:  
Manufacturer:

**29. If the packaging is for Radioactive Materials, complete the following:**

Packaging Category:  
Packaging Certification:  
Certification Number:  
Nuclide(s) Present:  
Activity:  
Critical Safety Index:

Transport Index:

**PART IV – CONSEQUENCES**

**30. Result of Incident (check all that apply):**

- Spillage:
- Explosion:
- Vapor (Gas) Dispersion:  True
- No Release:  False
- Fire:  True
- Material Entered Waterway/Storm Sewer:  True
- Environmental Damage:  True

**31. Emergency Response: The following entities responded to the incident: (Check all that apply)**

- Fire/EMS Report #:  True unavailable
- Police Report #:  True unavailable
- In-house cleanup:
- Other Cleanup:  True

**32. Damages Was the total damage cost more than \$500? True**

- If yes, enter the following information: (If no, go to question 33.)
- Material Loss: \$ 440,000.00
  - Carrier Damage: \$ 375,000.00
  - Property Damage: \$ 250,000.00
  - Response Cost: \$ 5,000,000.00
  - Remediation/Cleanup Cost: \$ 1,250,000.00
- (See damage definitions in the instructions)*

**33a. Did the hazardous material cause or contribute to a human fatality? False**

- If yes, enter the number of fatalities resulting from the hazardous material:
- Employees:
  - Responders:
  - General Public:

**33b. Were there human fatalities that did not result from the hazardous material? False**

If yes, how many?

**34. Did the hazardous material cause or contribute to personal injury? False**

If yes, enter the number of injuries resulting from the hazardous material:

**Hospitalized (Admitted Only):**

- Employees:
- Responders:
- General Public:

**Non-Hospitalized:**

*(e.g.: On site first aid or Emergency Room observation and release)*

- Employees:
- Responders:
- General Public:

**35. Did the hazardous material cause or contribute to an evacuation? True**

- If yes, provide the following information:
- Total number of general public evacuated: 2000
  - Total number of employees evacuated: 0
  - Total evacuated: 2000
  - Duration of the evacuation: 100

**36. Was a major transportation artery or facility closed? False**

If yes, how many?

**37. Was the material involved in a crash or derailment? False**

- If yes, provide the following information:
- Estimated speed (mph):
  - Weather conditions:
  - Vehicle overturned?
  - Vehicle left roadway/track?

**PART V - AIR INCIDENT INFORMATION (please refer to S 175.31 to report a discrepancy for air shipments)**

**38. Was the shipment on a passenger aircraft?**

If yes, was it tendered as cargo, or as passenger baggage?

**39. Where did the incident occur (if unknown, check the appropriate box for the location where the incident was discovered)?**

**40. What phase(s) had the shipment already undergone prior to the incident? (Check all that apply)**

- Shipment had not been transported
- Transported by air (first flight)
- Transport by air (subsequent flights)
- Initial transport by highway to cargo facility
- Transfer at sort center/cargo facility



## PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE

- Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

### Describe:

1. X-2023030186: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. TILX402025 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
2. X-2023030187: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. GATX95098 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
3. X-2023030188: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80235 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
4. X-2023030189: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80179 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
5. X-2023030190: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80370 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
6. X-2023030191: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. UTLX205907 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
7. X-2023030192: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. SHPX211226 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
8. X-2023030193: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. DOWX73168 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.

## PART VII - RECOMMENDATIONS/ACTIONS TAKEN TO PREVENT RECURRENCE

- Where you are able to do so, suggest or describe changes (such as additional training, use of better packaging, or improved operating procedures) to help prevent recurrence. Provide recommendations for improvement to hazardous materials transportation beyond the control of your individual company. Continue on additional sheets if necessary.

### Describe:

NO COMMENTS PROVIDED.

## PART VIII – CONTACT INFORMATION

Contact's Name:	Robert Wood
Contact's Title:	System Manager Hazardous materials
Business Name and Address:	Norfolk Southern 650 West Peachtree St, NW ATLANTA GA 30308
E-mail Address:	Robert.Wood2@nscorp.com
Telephone Number:	(800) 453-2530
Fax Number:	
Hazmat Registration Number:	062922550108E
Date:	02/24/2023
Preparer is:	Carrier



U.S Department of Transportation  
Research and Special Programs Administration

# Hazardous Materials Incident Report

Form Approval OMB No. 3137-0039

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 2137-0039. The filling out of this information is mandatory and will take 96 minutes to complete.

## INSTRUCTIONS

Submit this report to the Information Systems Manager, U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Office of Hazardous Materials Safety, DHM-63, Washington, D.C. 20590-0001. If space provided for any item is inadequate, use a separate sheet of paper, identifying the entry number being completed. Copies of this form and instructions can be obtained from the Office of Hazardous Materials Website at <http://hazmat.dot.gov>. If you have any questions, you can contact the Hazardous Materials Information Center at 1-800-HMR-4922 (1-800-467-4922) or online at <http://hazmat.dot.gov>.

## PART I - REPORT TYPE

1. **Incident Id:** X-2023030186  
2. **This is to report:** A

## PART II - GENERAL INCIDENT INFORMATION

3. **Date of Incident:** 02/03/2023  
4. **Time of Incident (use 24-hour time):** 21:30

5. **Enter National Response Center Report Number (if applicable):** 1359227  
6. **If you submitted a report to another Federal DOT agency, enter the agency and report number:**

7. **Location of Incident:**  
City: EAST PALESTINE  
County: COLUMBIANA  
State: OH  
Zip Code: (if known): 44413  
Street Address/Mile Marker/Yard Name/Airport/Body of Water/River Mile:  
MP PC48.7

8. **Mode of Transportation:** Rail  
9. **Transportation Phase:** In Transit

10. **Carrier/Reporter:**  
Name: NORFOLK SOUTHERN CORPORATION  
Street: 1200 PEACHTREE ST NE  
City: ATLANTA  
State: GA  
Zip Code: 30309-3579  
Federal DOT Id Number: Hazmat Registration Number:

11. **Shipper/Offeror:**  
Name: Oxy Vinyls  
Street: 2400 Miller Cutoff  
City: LA PORTE  
State: TX  
Zip Code: 77571  
Waybill/Shipping Paper: 364725  
Hazmat Registration Number:

12. **Origin (if different from shipper address)**  
Street:  
City:  
State:  
Zip Code:

13. **Destination:**  
Street: 130 Porcupine Rd  
City: PEDRICKTOWN  
State: NJ  
Zip Code: 08067

14. **Proper Shipping Name of Hazardous Material:** VINYL CHLORIDE, STABILIZED  
15. **Technical/Trade Name:** VINYL CHLORIDE, STABILIZED  
16. **Hazardous Class/Division:** Flammable Gas  
17. **Identification Number:** (E.g. UN2764, NA 2020) UN1086  
18. **Packing Group:** (if applicable)

- 19. Quantity Released:** (Include Measurement Units) 176100 Gas - Pound
- 20. Was the material shipped as a hazardous waste?** False  
If yes, provide the EPA Manifest Number:
- 21. Is this a Toxic by Inhalation (TIH) material?** False  
If yes, provide the Hazard Zone:
- 22. Was the material shipped under an Exemption, Approval, or Competent Authority Certificate?** False  
If yes, provide the Exemption, Approval, or CA number:
- 23. Was this an undeclared hazardous materials shipment?** False

### PART III - PACKAGING INFORMATION

**24. Check Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:**

Tank Car

**25. See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident.**

Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in part VI.

- What Failed: - 144-Pressure Relief Valve or Device - Reclosing; 144-Pressure Relief Valve or Device - Reclosing
- How Failed: - 313-Vented; 313-Vented
- Causes of Failure: - Commodity Polymerization; Fire, Temperature, or Heat

**26a. Provide the packaging identification markings, if available.**

Identification Markings: 105J300W

(Examples: 1A1/Y1.4/150/92/USA/RB/93/RL, UN311H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

**26b. For Non-bulk, IBC, or non-specification packaging, if identification markings are incomplete or unavailable, see instructions and complete the following:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Packaging Type:  
Material of Construction:  
Head Type (Drums only):

Packaging Type:  
Material of Construction:

**27. Describe the package capacity and the quantity:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Package Capacity:  
Amount in Package:  
Number in Shipment:  
Number Failed:

Package Capacity:  
Amount in Package:  
Number in Shipment:  
Number Failed:

**28. Provide packaging construction and test information, as appropriate:**

Manufacturer: TRIN  
Serial Number: OCPX80370  
Material of Construction: (if Tank Car, CTMV, Portable Tank, or Cylinder)  
Design Pressure: (if Tank Car, CTMV, Portable Tank)  
Shell Thickness: 0.56 INCH (if Tank Car, CTMV, Portable Tank)  
Head Thickness: 0.56 INCH (if Tank Car, CTMV)  
Service Pressure: (if Cylinder)

Manufacture Date:  
Last Test Date:

If valve or device failed:  
Type:  
Model:  
Manufacturer:

**29. If the packaging is for Radioactive Materials, complete the following:**

Packaging Category:  
Packaging Certification:  
Certification Number:  
Nuclide(s) Present:  
Activity:  
Critical Safety Index:

Transport Index:

**PART IV – CONSEQUENCES**

**30. Result of Incident (check all that apply):**

- Spillage:
- Explosion:
- Vapor (Gas) Dispersion:  True
- No Release:  False
- Fire:  True
- Material Entered Waterway/Storm Sewer:  True
- Environmental Damage:  True

**31. Emergency Response: The following entities responded to the incident: (Check all that apply)**

- Fire/EMS Report #:  True unavailable
- Police Report #:  True unavailable
- In-house cleanup:
- Other Cleanup:  True

**32. Damages Was the total damage cost more than \$500? True**

- If yes, enter the following information: (If no, go to question 33.)
- Material Loss: \$ 440,000.00
  - Carrier Damage: \$ 375,000.00
  - Property Damage: \$ 250,000.00
  - Response Cost: \$ 5,000,000.00
  - Remediation/Cleanup Cost: \$ 1,250,000.00
- (See damage definitions in the instructions)*

**33a. Did the hazardous material cause or contribute to a human fatality? False**

- If yes, enter the number of fatalities resulting from the hazardous material:
- Employees:
  - Responders:
  - General Public:

**33b. Were there human fatalities that did not result from the hazardous material? False**

If yes, how many?

**34. Did the hazardous material cause or contribute to personal injury? False**

If yes, enter the number of injuries resulting from the hazardous material:

**Hospitalized (Admitted Only):**

- Employees:
- Responders:
- General Public:

**Non-Hospitalized:**

*(e.g.: On site first aid or Emergency Room observation and release)*

- Employees:
- Responders:
- General Public:

**35. Did the hazardous material cause or contribute to an evacuation? True**

- If yes, provide the following information:
- Total number of general public evacuated: 2000
  - Total number of employees evacuated: 0
  - Total evacuated: 2000
  - Duration of the evacuation: 100

**36. Was a major transportation artery or facility closed? False**

If yes, how many?

**37. Was the material involved in a crash or derailment? False**

- If yes, provide the following information:
- Estimated speed (mph):
  - Weather conditions:
  - Vehicle overturned?
  - Vehicle left roadway/track?

**PART V - AIR INCIDENT INFORMATION (please refer to S 175.31 to report a discrepancy for air shipments)**

**38. Was the shipment on a passenger aircraft?**

If yes, was it tendered as cargo, or as passenger baggage?

**39. Where did the incident occur (if unknown, check the appropriate box for the location where the incident was discovered)?**

**40. What phase(s) had the shipment already undergone prior to the incident? (Check all that apply)**

- Shipment had not been transported
- Transported by air (first flight)
- Transport by air (subsequent flights)
- Initial transport by highway to cargo facility
- Transfer at sort center/cargo facility

## PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE

- Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

### Describe:

1. X-2023030186: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. TILX402025 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
2. X-2023030187: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. GATX95098 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
3. X-2023030188: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80235 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
4. X-2023030189: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80179 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
5. X-2023030190: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80370 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
6. X-2023030191: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. UTLX205907 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
7. X-2023030192: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. SHPX211226 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
8. X-2023030193: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. DOWX73168 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.

## PART VII - RECOMMENDATIONS/ACTIONS TAKEN TO PREVENT RECURRENCE

- Where you are able to do so, suggest or describe changes (such as additional training, use of better packaging, or improved operating procedures) to help prevent recurrence. Provide recommendations for improvement to hazardous materials transportation beyond the control of your individual company. Continue on additional sheets if necessary.

### Describe:

NO COMMENTS PROVIDED.

## PART VIII – CONTACT INFORMATION

Contact's Name:	Robert Wood
Contact's Title:	System Manager Hazardous materials
Business Name and Address:	Norfolk Southern 650 West Peachtree St, NW ATLANTA GA 30308
E-mail Address:	Robert.Wood2@nscorp.com
Telephone Number:	(800) 453-2530
Fax Number:	
Hazmat Registration Number:	062922550108E
Date:	02/24/2023
Preparer is:	Carrier



U.S Department of Transportation  
Research and Special Programs Administration

# Hazardous Materials Incident Report

Form Approval OMB No. 3137-0039

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 2137-0039. The filling out of this information is mandatory and will take 96 minutes to complete.

## INSTRUCTIONS

Submit this report to the Information Systems Manager, U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Office of Hazardous Materials Safety, DHM-63, Washington, D.C. 20590-0001. If space provided for any item is inadequate, use a separate sheet of paper, identifying the entry number being completed. Copies of this form and instructions can be obtained from the Office of Hazardous Materials Website at <http://hazmat.dot.gov>. If you have any questions, you can contact the Hazardous Materials Information Center at 1-800-HMR-4922 (1-800-467-4922) or online at <http://hazmat.dot.gov>.

## PART I - REPORT TYPE

1. **Incident Id:** X-2023030186  
2. **This is to report:** A

## PART II - GENERAL INCIDENT INFORMATION

<p>3. <b>Date of Incident:</b> 02/03/2023</p> <p>5. <b>Enter National Response Center Report Number (if applicable):</b> 1359227</p> <p>7. <b>Location of Incident:</b>                                            City: EAST PALESTINE                                            County: COLUMBIANA                                            State: OH                                            Zip Code: (if known): 44413          Street Address/Mile Marker/Yard Name/Airport/Body of Water/River Mile:          MP PC48.7</p> <p>8. <b>Mode of Transportation:</b> Rail</p> <p>9. <b>Transportation Phase:</b> In Transit</p> <p>10. <b>Carrier/Reporter:</b>                                            Name: NORFOLK SOUTHERN CORPORATION                                            Street: 1200 PEACHTREE ST NE                                            City: ATLANTA                                            State: GA                                            Zip Code: 30309-3579          Federal DOT Id Number: _____ Hazmat Registration Number: _____</p> <p>11. <b>Shipper/Offeror:</b>                                            Name: Arkema                                            Street: 9502 B Bayport BLVD                                            City: PASADENA                                            State: TX                                            Zip Code: 77507          Waybill/Shipping Paper: 426923 Hazmat Registration Number: _____</p> <p>12. <b>Origin (if different from shipper address)</b>                                            Street:                                            City:                                            State:                                            Zip Code:</p> <p>13. <b>Destination:</b>                                            Street: 291 S Keim St                                            City: POTTSTOWN                                            State: PA                                            Zip Code: 19464</p> <p>14. <b>Proper Shipping Name of Hazardous Material:</b> BUTYL ACRYLATES, STABILIZED</p> <p>15. <b>Technical/Trade Name:</b> BUTYL ACRYLATES, STABILIZED</p> <p>16. <b>Hazardous Class/Division:</b> Flammable - Combustible Liquid</p> <p>17. <b>Identification Number:</b> (E.g. UN2764, NA 2020) UN2348</p> <p>18. <b>Packing Group:</b> (if applicable)</p>	<p>4. <b>Time of Incident (use 24-hour time):</b> 21:30</p> <p>6. <b>If you submitted a report to another Federal DOT agency, enter the agency and report number:</b></p>
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- 19. Quantity Released:** (Include Measurement Units) 180000 Liquid - Pound
- 20. Was the material shipped as a hazardous waste?** False  
If yes, provide the EPA Manifest Number:
- 21. Is this a Toxic by Inhalation (TIH) material?** False  
If yes, provide the Hazard Zone:
- 22. Was the material shipped under an Exemption, Approval, or Competent Authority Certificate?** False  
If yes, provide the Exemption, Approval, or CA number:
- 23. Was this an undeclared hazardous materials shipment?** False

### PART III - PACKAGING INFORMATION

**24. Check Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:**

Tank Car

**25. See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident.**

Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in part VI.

What Failed: - 149-Tank Head; 149-Tank Head  
How Failed: - 308-Leaked; 309-Punctured  
Causes of Failure: - Derailment

**26a. Provide the packaging identification markings, if available.**

Identification Markings: 111A100W1

(Examples: 1A1/Y1.4/150/92/USA/RB/93/RL, UN31H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

**26b. For Non-bulk, IBC, or non-specification packaging, if identification markings are incomplete or unavailable, see instructions and complete the following:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Packaging Type:  
Material of Construction:  
Head Type (Drums only):

Packaging Type:  
Material of Construction:

**27. Describe the package capacity and the quantity:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Package Capacity: 30220 Liquid - Gallon  
Amount in Package: 180000 Liquid - Pound  
Number in Shipment: 1  
Number Failed: 1

Package Capacity:  
Amount in Package:  
Number in Shipment:  
Number Failed:

**28. Provide packaging construction and test information, as appropriate:**

Manufacturer:  
Serial Number: UTLX205907  
Material of Construction: (if Tank Car, CTMV, Portable Tank, or Cylinder)  
Design Pressure: (if Tank Car, CTMV, Portable Tank)  
Shell Thickness: 0.44 INCH (if Tank Car, CTMV, Portable Tank)  
Head Thickness: 0.47 INCH (if Tank Car, CTMV)  
Service Pressure: (if Cylinder)  
If valve or device failed:  
Type:  
Model:  
Manufacturer:

Manufacture Date:  
Last Test Date:

**29. If the packaging is for Radioactive Materials, complete the following:**

Packaging Category:  
Packaging Certification:  
Certification Number:  
Nuclide(s) Present:  
Activity:  
Critical Safety Index:

Transport Index:

**PART IV – CONSEQUENCES**

**30. Result of Incident (check all that apply):**

- Spillage:  - Fire:  True
- Explosion:  - Material Entered Waterway/Storm Sewer:  True
- Vapor (Gas) Dispersion:  True - Environmental Damage:  True
- No Release:  False

**31. Emergency Response: The following entities responded to the incident: (Check all that apply)**

- Fire/EMS Report #:  True unavailable
- Police Report #:  True unavailable
- In-house cleanup:
- Other Cleanup:  True

**32. Damages Was the total damage cost more than \$500? True**

- If yes, enter the following information: (If no, go to question 33.)
- Material Loss: \$ 440,000.00
  - Carrier Damage: \$ 375,000.00
  - Property Damage: \$ 250,000.00
  - Response Cost: \$ 5,000,000.00
  - Remediation/Cleanup Cost: \$ 1,250,000.00
- (See damage definitions in the instructions)*

**33a. Did the hazardous material cause or contribute to a human fatality? False**

- If yes, enter the number of fatalities resulting from the hazardous material:
- Employees:
  - Responders:
  - General Public:

**33b. Were there human fatalities that did not result from the hazardous material? False**

If yes, how many?

**34. Did the hazardous material cause or contribute to personal injury? False**

If yes, enter the number of injuries resulting from the hazardous material:

**Hospitalized (Admitted Only):**

- Employees:
- Responders:
- General Public:

**Non-Hospitalized:**

*(e.g.: On site first aid or Emergency Room observation and release)*

- Employees:
- Responders:
- General Public:

**35. Did the hazardous material cause or contribute to an evacuation? True**

- If yes, provide the following information:
- Total number of general public evacuated: 2000
  - Total number of employees evacuated: 0
  - Total evacuated: 2000
  - Duration of the evacuation: 100

**36. Was a major transportation artery or facility closed? False**

If yes, how many?

**37. Was the material involved in a crash or derailment? False**

- If yes, provide the following information:
- Estimated speed (mph):
  - Weather conditions:
  - Vehicle overturned?
  - Vehicle left roadway/track?

**PART V - AIR INCIDENT INFORMATION (please refer to S 175.31 to report a discrepancy for air shipments)**

**38. Was the shipment on a passenger aircraft?**

If yes, was it tendered as cargo, or as passenger baggage?

**39. Where did the incident occur (if unknown, check the appropriate box for the location where the incident was discovered)?**

**40. What phase(s) had the shipment already undergone prior to the incident? (Check all that apply)**

- Shipment had not been transported
- Transported by air (first flight)
- Transport by air (subsequent flights)
- Initial transport by highway to cargo facility
- Transfer at sort center/cargo facility



## PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE

- Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

### Describe:

1. X-2023030186: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. TILX402025 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
2. X-2023030187: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. GATX95098 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
3. X-2023030188: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80235 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
4. X-2023030189: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80179 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
5. X-2023030190: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80370 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
6. X-2023030191: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. UTLX205907 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
7. X-2023030192: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. SHPX211226 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
8. X-2023030193: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. DOWX73168 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.

## PART VII - RECOMMENDATIONS/ACTIONS TAKEN TO PREVENT RECURRENCE

- Where you are able to do so, suggest or describe changes (such as additional training, use of better packaging, or improved operating procedures) to help prevent recurrence. Provide recommendations for improvement to hazardous materials transportation beyond the control of your individual company. Continue on additional sheets if necessary.

### Describe:

NO COMMENTS PROVIDED.

## PART VIII – CONTACT INFORMATION

Contact's Name:	Robert Wood
Contact's Title:	System Manager Hazardous materials
Business Name and Address:	Norfolk Southern 650 West Peachtree St, NW ATLANTA GA 30308
E-mail Address:	Robert.Wood2@nscorp.com
Telephone Number:	(800) 453-2530
Fax Number:	
Hazmat Registration Number:	062922550108E
Date:	02/24/2023
Preparer is:	Carrier



U.S Department of Transportation  
Research and Special Programs Administration

# Hazardous Materials Incident Report

Form Approval OMB No. 3137-0039

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 2137-0039. The filling out of this information is mandatory and will take 96 minutes to complete.

## INSTRUCTIONS

Submit this report to the Information Systems Manager, U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Office of Hazardous Materials Safety, DHM-63, Washington, D.C. 20590-0001. If space provided for any item is inadequate, use a separate sheet of paper, identifying the entry number being completed. Copies of this form and instructions can be obtained from the Office of Hazardous Materials Website at <http://hazmat.dot.gov>. If you have any questions, you can contact the Hazardous Materials Information Center at 1-800-HMR-4922 (1-800-467-4922) or online at <http://hazmat.dot.gov>.

## PART I - REPORT TYPE

**1. Incident Id:** X-2023030186  
**2. This is to report:** A

## PART II - GENERAL INCIDENT INFORMATION

<p><b>3. Date of Incident:</b> 02/03/2023</p> <p><b>5. Enter National Response Center Report Number (if applicable):</b> 1359227</p> <p><b>7. Location of Incident:</b> City: EAST PALESTINE County: COLUMBIANA State: OH Zip Code: (if known): 44413 Street Address/Mile Marker/Yard Name/Airport/Body of Water/River Mile: MP PC48.7</p> <p><b>8. Mode of Transportation:</b> Rail</p> <p><b>9. Transportation Phase:</b> In Transit</p> <p><b>10. Carrier/Reporter:</b> Name: NORFOLK SOUTHERN CORPORATION Street: 1200 PEACHTREE ST NE City: ATLANTA State: GA Zip Code: 30309-3579 Federal DOT Id Number:</p> <p><b>11. Shipper/Offeror:</b> Name: Equistar Chemicals BPO Street: 5761 Underwood Rd City: PASADENA State: TX Zip Code: 77507 Waybill/Shipping Paper: 417020</p> <p><b>12. Origin (if different from shipper address)</b> Street: City: State: Zip Code:</p> <p><b>13. Destination:</b> Street: 2 Commerce Street City: BAYONNE State: NJ Zip Code: 07002</p> <p><b>14. Proper Shipping Name of Hazardous Material:</b> COMBUSTIBLE LIQUID, N.O.S.</p> <p><b>15. Technical/Trade Name:</b> ETHYLENE GLYCOL MONOBUTYL ETHER</p> <p><b>16. Hazardous Class/Division:</b> Combustible Liquid</p> <p><b>17. Identification Number:</b> (E.g. UN2764, NA 2020) NA1993</p> <p><b>18. Packing Group:</b> (if applicable)</p>	<p><b>4. Time of Incident (use 24-hour time):</b> 21:30</p> <p><b>6. If you submitted a report to another Federal DOT agency, enter the agency and report number:</b></p> <p>Hazmat Registration Number:</p> <p>Hazmat Registration Number:</p>
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- 19. Quantity Released:** (Include Measurement Units) 185750 Liquid - Pound
- 20. Was the material shipped as a hazardous waste?** False  
If yes, provide the EPA Manifest Number:
- 21. Is this a Toxic by Inhalation (TIH) material?** False  
If yes, provide the Hazard Zone:
- 22. Was the material shipped under an Exemption, Approval, or Competent Authority Certificate?** False  
If yes, provide the Exemption, Approval, or CA number:
- 23. Was this an undeclared hazardous materials shipment?** False

### PART III - PACKAGING INFORMATION

**24. Check Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:**

Tank Car

**25. See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident.**

Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in part VI.

What Failed: - 150-Tank Shell; 150-Tank Shell  
How Failed: - 308-Leaked; 309-Punctured  
Causes of Failure: - Derailment

**26a. Provide the packaging identification markings, if available.**

Identification Markings: 111S100W1

(Examples: 1A1/Y1.4/150/92/USA/RB/93/RL, UN31H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

**26b. For Non-bulk, IBC, or non-specification packaging, if identification markings are incomplete or unavailable, see instructions and complete the following:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Packaging Type:  
Material of Construction:  
Head Type (Drums only):

Packaging Type:  
Material of Construction:

**27. Describe the package capacity and the quantity:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Package Capacity: 25660 Liquid - Gallon  
Amount in Package: 185750 Liquid - Pound  
Number in Shipment: 1  
Number Failed: 1

Package Capacity:  
Amount in Package:  
Number in Shipment:  
Number Failed:

**28. Provide packaging construction and test information, as appropriate:**

Manufacturer: ARI  
Serial Number: SHPX211226  
Material of Construction: (if Tank Car, CTMV, Portable Tank, or Cylinder)  
Design Pressure: (if Tank Car, CTMV, Portable Tank)  
Shell Thickness: 0.44 INCH (if Tank Car, CTMV, Portable Tank)  
Head Thickness: 0.44 INCH (if Tank Car, CTMV)  
Service Pressure: (if Cylinder)  
If valve or device failed:  
Type:  
Model:  
Manufacturer:

Manufacture Date:  
Last Test Date:

**29. If the packaging is for Radioactive Materials, complete the following:**

Packaging Category:  
Packaging Certification:  
Certification Number:  
Nuclide(s) Present:  
Activity:  
Critical Safety Index:

Transport Index:

**PART IV – CONSEQUENCES**

**30. Result of Incident (check all that apply):**

- Spillage:
- Explosion:
- Vapor (Gas) Dispersion:  True
- No Release:  False
- Fire:  True
- Material Entered Waterway/Storm Sewer:  True
- Environmental Damage:  True

**31. Emergency Response: The following entities responded to the incident: (Check all that apply)**

- Fire/EMS Report #:  True unavailable
- Police Report #:  True unavailable
- In-house cleanup:
- Other Cleanup:  True

**32. Damages Was the total damage cost more than \$500? True**

- If yes, enter the following information: (If no, go to question 33.)
- Material Loss: \$ 440,000.00
  - Carrier Damage: \$ 375,000.00
  - Property Damage: \$ 250,000.00
  - Response Cost: \$ 5,000,000.00
  - Remediation/Cleanup Cost: \$ 1,250,000.00
- (See damage definitions in the instructions)*

**33a. Did the hazardous material cause or contribute to a human fatality? False**

- If yes, enter the number of fatalities resulting from the hazardous material:
- Employees:
  - Responders:
  - General Public:

**33b. Were there human fatalities that did not result from the hazardous material? False**

If yes, how many?

**34. Did the hazardous material cause or contribute to personal injury? False**

If yes, enter the number of injuries resulting from the hazardous material:

**Hospitalized (Admitted Only):**

- Employees:
- Responders:
- General Public:

**Non-Hospitalized:**

*(e.g.: On site first aid or Emergency Room observation and release)*

- Employees:
- Responders:
- General Public:

**35. Did the hazardous material cause or contribute to an evacuation? True**

- If yes, provide the following information:
- Total number of general public evacuated: 2000
  - Total number of employees evacuated: 0
  - Total evacuated: 2000
  - Duration of the evacuation: 100

**36. Was a major transportation artery or facility closed? False**

If yes, how many?

**37. Was the material involved in a crash or derailment? False**

- If yes, provide the following information:
- Estimated speed (mph):
  - Weather conditions:
  - Vehicle overturned?
  - Vehicle left roadway/track?

**PART V - AIR INCIDENT INFORMATION (please refer to S 175.31 to report a discrepancy for air shipments)**

**38. Was the shipment on a passenger aircraft?**

If yes, was it tendered as cargo, or as passenger baggage?

**39. Where did the incident occur (if unknown, check the appropriate box for the location where the incident was discovered)?**

**40. What phase(s) had the shipment already undergone prior to the incident? (Check all that apply)**

- Shipment had not been transported
- Transported by air (first flight)
- Transport by air (subsequent flights)
- Initial transport by highway to cargo facility
- Transfer at sort center/cargo facility

## PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE

- Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

### Describe:

1. X-2023030186: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. TILX402025 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
2. X-2023030187: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. GATX95098 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
3. X-2023030188: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80235 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
4. X-2023030189: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80179 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
5. X-2023030190: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80370 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
6. X-2023030191: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. UTLX205907 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
7. X-2023030192: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. SHPX211226 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
8. X-2023030193: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. DOWX73168 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.

## PART VII - RECOMMENDATIONS/ACTIONS TAKEN TO PREVENT RECURRENCE

- Where you are able to do so, suggest or describe changes (such as additional training, use of better packaging, or improved operating procedures) to help prevent recurrence. Provide recommendations for improvement to hazardous materials transportation beyond the control of your individual company. Continue on additional sheets if necessary.

### Describe:

NO COMMENTS PROVIDED.

## PART VIII – CONTACT INFORMATION

Contact's Name:	Robert Wood
Contact's Title:	System Manager Hazardous materials
Business Name and Address:	Norfolk Southern 650 West Peachtree St, NW ATLANTA GA 30308
E-mail Address:	Robert.Wood2@nscorp.com
Telephone Number:	(800) 453-2530
Fax Number:	
Hazmat Registration Number:	062922550108E
Date:	02/24/2023
Preparer is:	Carrier



U.S Department of Transportation  
Research and Special Programs Administration

# Hazardous Materials Incident Report

Form Approval OMB No. 3137-0039

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 2137-0039. The filling out of this information is mandatory and will take 96 minutes to complete.

## INSTRUCTIONS

Submit this report to the Information Systems Manager, U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Office of Hazardous Materials Safety, DHM-63, Washington, D.C. 20590-0001. If space provided for any item is inadequate, use a separate sheet of paper, identifying the entry number being completed. Copies of this form and instructions can be obtained from the Office of Hazardous Materials Website at <http://hazmat.dot.gov>. If you have any questions, you can contact the Hazardous Materials Information Center at 1-800-HMR-4922 (1-800-467-4922) or online at <http://hazmat.dot.gov>.

## PART I - REPORT TYPE

1. Incident Id: X-2023030186  
2. This is to report: A

## PART II - GENERAL INCIDENT INFORMATION

3. Date of Incident: 02/03/2023  
4. Time of Incident (use 24-hour time): 21:30

5. Enter National Response Center Report Number (if applicable): 1359227  
6. If you submitted a report to another Federal DOT agency, enter the agency and report number:

7. Location of Incident:  
City: EAST PALESTINE  
County: COLUMBIANA  
State: OH  
Zip Code: (if known): 44413  
Street Address/Mile Marker/Yard Name/Airport/Body of Water/River Mile:  
MP PC48.7

8. Mode of Transportation: Rail  
9. Transportation Phase: In Transit

10. Carrier/Reporter:  
Name: NORFOLK SOUTHERN CORPORATION  
Street: 1200 PEACHTREE ST NE  
City: ATLANTA  
State: GA  
Zip Code: 30309-3579  
Federal DOT Id Number: Hazmat Registration Number:

11. Shipper/Offeror:  
Name: Union Carbide Corp  
Street: River Rd Hwy 18  
City: HAHNVILLE  
State: LA  
Zip Code: 70057  
Waybill/Shipping Paper: 431059  
Hazmat Registration Number:

12. Origin (if different from shipper address)  
Street:  
City:  
State:  
Zip Code:

13. Destination:  
Street: 171 Draketown Rd  
City: MILL HALL  
State: PA  
Zip Code: 17751

14. Proper Shipping Name of Hazardous Material: COMBUSTIBLE LIQUID, N.O.S.  
15. Technical/Trade Name: 2-ETHYLHEXYL ACRYLATE  
16. Hazardous Class/Division: Combustible Liquid  
17. Identification Number: (E.g. UN2764, NA 2020) NA1993  
18. Packing Group: (if applicable) III

- 19. Quantity Released:** (Include Measurement Units) 188300 Liquid - Pound
- 20. Was the material shipped as a hazardous waste?** False  
If yes, provide the EPA Manifest Number:
- 21. Is this a Toxic by Inhalation (TIH) material?** False  
If yes, provide the Hazard Zone:
- 22. Was the material shipped under an Exemption, Approval, or Competent Authority Certificate?** False  
If yes, provide the Exemption, Approval, or CA number:
- 23. Was this an undeclared hazardous materials shipment?** False

### PART III - PACKAGING INFORMATION

**24. Check Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:**

Tank Car

**25. See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident.**

Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in part VI.

What Failed: - 149-Tank Head; 149-Tank Head  
How Failed: - 308-Leaked; 309-Punctured  
Causes of Failure: - Derailment

**26a. Provide the packaging identification markings, if available.**

Identification Markings: 111S100W1

(Examples: 1A1/Y1.4/150/92/USA/RB/93/RL, UN31H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

**26b. For Non-bulk, IBC, or non-specification packaging, if identification markings are incomplete or unavailable, see instructions and complete the following:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Packaging Type:  
Material of Construction:  
Head Type (Drums only):

Packaging Type:  
Material of Construction:

**27. Describe the package capacity and the quantity:**

**Single Package or Outer Packaging:**

**Single Package or Inner Packaging (if any):**

Package Capacity: 29380 Liquid - Gallon  
Amount in Package: 188300 Liquid - Pound  
Number in Shipment: 1  
Number Failed: 1

Package Capacity:  
Amount in Package:  
Number in Shipment:  
Number Failed:

**28. Provide packaging construction and test information, as appropriate:**

Manufacturer: TRIN  
Serial Number: DOWX73168  
Material of Construction: (if Tank Car, CTMV, Portable Tank, or Cylinder)  
Design Pressure: (if Tank Car, CTMV, Portable Tank)  
Shell Thickness: 0.5 INCH (if Tank Car, CTMV, Portable Tank)  
Head Thickness: 0.5 INCH (if Tank Car, CTMV)  
Service Pressure: (if Cylinder)  
If valve or device failed:  
Type:  
Model:  
Manufacturer:

Manufacture Date:  
Last Test Date:

**29. If the packaging is for Radioactive Materials, complete the following:**

Packaging Category:  
Packaging Certification:  
Certification Number:  
Nuclide(s) Present:  
Activity:  
Critical Safety Index:

Transport Index:

**PART IV – CONSEQUENCES**

**30. Result of Incident (check all that apply):**

- Spillage:  - Fire:  True
- Explosion:  - Material Entered Waterway/Storm Sewer:  True
- Vapor (Gas) Dispersion:  True - Environmental Damage:  True
- No Release:  False

**31. Emergency Response: The following entities responded to the incident: (Check all that apply)**

- Fire/EMS Report #:  True unavailable
- Police Report #:  True unavailable
- In-house cleanup:
- Other Cleanup:  True

**32. Damages Was the total damage cost more than \$500? True**

- If yes, enter the following information: (If no, go to question 33.)
- Material Loss: \$ 440,000.00
  - Carrier Damage: \$ 375,000.00
  - Property Damage: \$ 250,000.00
  - Response Cost: \$ 5,000,000.00
  - Remediation/Cleanup Cost: \$ 1,250,000.00
- (See damage definitions in the instructions)*

**33a. Did the hazardous material cause or contribute to a human fatality? False**

- If yes, enter the number of fatalities resulting from the hazardous material:
- Employees:
  - Responders:
  - General Public:

**33b. Were there human fatalities that did not result from the hazardous material? False**

If yes, how many?

**34. Did the hazardous material cause or contribute to personal injury? False**

If yes, enter the number of injuries resulting from the hazardous material:

**Hospitalized (Admitted Only):**

- Employees:
- Responders:
- General Public:

**Non-Hospitalized:**

*(e.g.: On site first aid or Emergency Room observation and release)*

- Employees:
- Responders:
- General Public:

**35. Did the hazardous material cause or contribute to an evacuation? True**

- If yes, provide the following information:
- Total number of general public evacuated: 2000
  - Total number of employees evacuated: 0
  - Total evacuated: 2000
  - Duration of the evacuation: 100

**36. Was a major transportation artery or facility closed? False**

If yes, how many?

**37. Was the material involved in a crash or derailment? False**

- If yes, provide the following information:
- Estimated speed (mph):
  - Weather conditions:
  - Vehicle overturned?
  - Vehicle left roadway/track?

**PART V - AIR INCIDENT INFORMATION (please refer to S 175.31 to report a discrepancy for air shipments)**

**38. Was the shipment on a passenger aircraft?**

If yes, was it tendered as cargo, or as passenger baggage?

**39. Where did the incident occur (if unknown, check the appropriate box for the location where the incident was discovered)?**

**40. What phase(s) had the shipment already undergone prior to the incident? (Check all that apply)**

- Shipment had not been transported
- Transported by air (first flight)
- Transport by air (subsequent flights)
- Initial transport by highway to cargo facility
- Transfer at sort center/cargo facility



## PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE

- Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

### Describe:

1. X-2023030186: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. TILX402025 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
2. X-2023030187: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. GATX95098 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
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4. X-2023030189: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80179 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
5. X-2023030190: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. OCPX80370 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
6. X-2023030191: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. UTLX205907 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
7. X-2023030192: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. SHPX211226 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.
8. X-2023030193: NS train 32NB101 had a derailment with fire involving numerous rail cars. 11 of those rail cars were tank cars carrying hazardous material. 8 of the hazardous materials tank cars released product as a result of the derailment and fire. DOWX73168 was one of those cars. There will be (8) 5800 Reports associated with this incident. The current estimated total cost of this incident is \$58,520,000.

## PART VII - RECOMMENDATIONS/ACTIONS TAKEN TO PREVENT RECURRENCE

- Where you are able to do so, suggest or describe changes (such as additional training, use of better packaging, or improved operating procedures) to help prevent recurrence. Provide recommendations for improvement to hazardous materials transportation beyond the control of your individual company. Continue on additional sheets if necessary.

### Describe:

NO COMMENTS PROVIDED.

## PART VIII – CONTACT INFORMATION

Contact's Name:	Robert Wood
Contact's Title:	System Manager Hazardous materials
Business Name and Address:	Norfolk Southern 650 West Peachtree St, NW ATLANTA GA 30308
E-mail Address:	Robert.Wood2@nscorp.com
Telephone Number:	(800) 453-2530
Fax Number:	
Hazmat Registration Number:	062922550108E
Date:	02/24/2023
Preparer is:	Carrier