



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>F</b>
<b>EXHIBIT</b>	
32	

Agency / Organization

**Oxy Vinyls, LP**

Title

**Application for Approval and Certificate of  
Construction, OCPX80370, January 19, 2006**

KFC

# APPLICATION FOR APPROVAL AND CERTIFICATE OF CONSTRUCTION

Page 1 of 2

1 APPROVAL REQUESTED OF:  PRECEDENT  NON PRECEDENT

2 TYPE:  CONSTRUCTION  WELDED REPAIRS  
 ALTERATION  OTHER  
 CONVERSION

3 AAR NO: L066049A  
4 DATE: JANUARY 19, 2006  
5 APPLICANT'S NO.: T05012  
6 APPLICANT: TRINITY INDUSTRIES, INC.  
P.O. BOX 588887 DALLAS, TEXAS 75358-8887  
7 TANK SPECIFICATION: DOT 105A300W  
8 STENCILED SPEC: DOT 105J300W  
9 REPORTING MARKS & CAR NUMBERS: OCPX [redacted] thru OCPX [redacted]  
10 NUMBER OF CARS: [redacted]

11	Initial commodity	SEE NOTES	12	Density, lb. per gallon	7.80
13	Full water capacity, gal.	24,600	14	Dome capacity or outage, gal.	Per DOT 173.24b(a)(1)
15	Material type & grade - heads	AAR TC128 Gr. B NORM.	16	Material type & grade - shell	AAR TC128 Gr. B NORM.
17	Material thickness - heads, in.	0.5625	18	Material thickness - shell, in.	0.5625
19	Lining type	NONE	20	Inside diameter - center, in.	116
21	Inside diameter - end rings, in.	116	22	Head radius, main, in. (if not 2:1)	2:1 ELLIPSOIDAL
23	Test pressure, psig	300	24	Insulation type	SEE PAGE 2
25	Insulation thickness, in.	4	26	Thermal conductivity, Btu-in/hr-ft <sup>2</sup> -°F	0.257
27	Type and number of pressure relief devices	ONE VALVE	28	Pressure relief device start-to-discharge, psig	247.5
29	Pressure relief device flow cap'y., scfm req'd.	281*	30	Pressure relief device flow capacity, scfm, actual	22,598
31	Tank surface area, sq. ft.	1480	32	Underframe or stub sill type	Stub Sill--TRN 023
33	Center of gravity, loaded, in.	88.13	34	Est. light weight, lb.	80,200
35	AAR clearance diagram	C	36	Rail load limit, lb.	283,000
37	Truck capacity, tons	100	38	Head Shields	Full diameter--1/2" thick steel ASTM A572-50

NOTES: Vinyl Chloride, Inhibited and products authorized in DOT Part 173 for which there are no special commodity requirements and nonregulated commodities compatible with this class of car.

Orig. Cert. \_\_\_\_\_  
 Builder \_\_\_\_\_  
 Date \_\_\_\_\_  
 Former lading \_\_\_\_\_

\*GI = 5,486 for Vinyl Chloride at start-to-discharge pressure of 247.5 psig per Table A5.

The Following Drawings Apply	Drawing Number	The following prior approvals apply:	
		Drawing Number	Application/Certificate No.
39 General Arrangement	D-41774		
40 Tank Arrangement	D-43805 SH. 1		
41 Reinforced Openings	D-43805 SH. 2A & 3		
42 Bolster & Draft Sill Arrangement	D-340355-01 SH. 1A & 2A		L056043
43 Fittings Arrangement	D-54133 SH. 1A, 2A & 3A		
44 Manway Assembly	D-340016G		L986083A
45 Protective Housing	D-443514A		
46 Venting, Loading and Discharge Valves	See Page 2		
47 Pressure Relief Devices	MIDLAND A-34247		PRD 022020
48 Heater Systems (Int <input type="checkbox"/> Ext <input type="checkbox"/> )	NONE		
49 Gauging Devices	MIDLAND B-612		E002003
50 Bottom Outlet Valve	NONE		
51 Jacket Anchor	D-46344B		L986040
52 Manway cover	D-543697A		
53 Calculations	D-343978A		L036013
54 Tank Qualification Drawing	D-41789		

REVISIONS:  
 Jan. 26, 2006-Rev. A: Correct drawing errors on drawings D-43805 sh. 2 & D-54133 sh 1, 2, 3.

APPLICATION BY: William R. Bitting  
 I certify that the foregoing conforms to all applicable DOT and AAR requirements including Specifications, Regulations, Rules of Interchange, and the DOT Railroad Safety Appliance Standards.  
 SIGNATURE: [redacted]  
 TITLE: Senior Design Engineer

APPROVAL - AAR Tank Car Committee  
 Date Approved: FEB 24 2006  
 Signature on behalf of Tank Car Committee: [redacted]

CERTIFICATION: The cars enumerated below conform to the above approved description and to all applicable DOT and AAR requirements including Specifications, Regulations, Rules of Interchange and the DOT Railroad Safety Appliance Standards. Copy of this Certificate of Construction will be furnished to the owner and others as required by 49 CFR Part 179.5 before these cars are placed in service.  
 Initials and Car Numbers: [redacted]

Form AAR 4-2 Revised 12/1/00  
 Name: [redacted] Date: 3-2-06  
 Title: Director Quality Assurance