Hazardous Materials Incident Reporting

Hazmat Seminar

Gary Flores, HM Inspector

Reporting Requirements are found in the following area's:

- 49 C.F.R. 171.15
- 49 C.F.R. 171.16
- 49 C.F.R. 225

Reporting Railroad Incidents

Immediate Notification Continued

§225.9

(No later than 12 hours after the occurrence of an incident)

National Response Center

(800) 424-8802 *or* **(800) 424-0201**

Types of accidents / incidents and other events to be reported:

✓ **Train accidents or Incidents that require Immediate notification:**

-Train accident that involves serious injury of 2 or more train crew members or passengers requiring hospitalization.

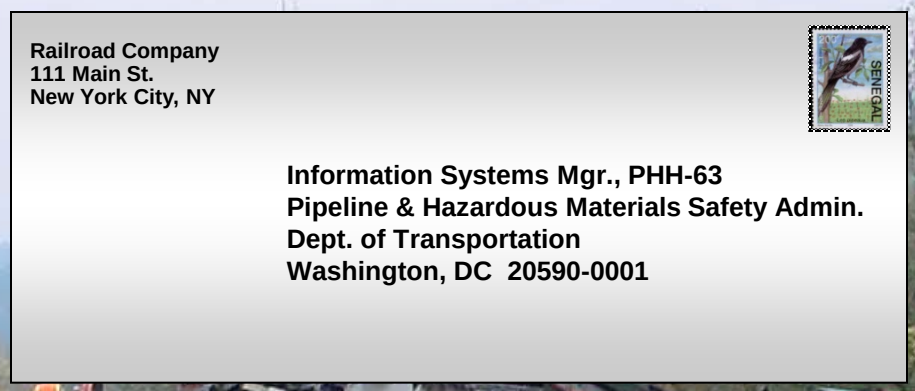
-Train accident that result in the evacuation of a passenger train.

-A fatality resulting from a railroad / highway grade crossing when death occurs within 24 hours of the incident.

-A train accident resulting in damage (based on preliminary gross estimates) of $150, 000.00 or more to railroad and or non-railroad property.

-A train accident resulting in damage of $25,000.00 or more to a passenger train, including railroad and non-railroad property.

Reporting Hazmat Incidents to DOT in Writing



§171.16

Each person in <u>physical</u> <u>possession</u> of a hazardous material at the time an incident occurs during transportation (including loading, unloading and temporary storage) must submit a Hazardous Materials Incident Report on DOT Form F5800.1 within 30 days of discovery of the incident.

Records maintained for 2 years

<u>Includes</u>:

1. **Any incident requiring an "immediate notification" to DOT.**
2. **An unintentional release of hazmat** *or* **the discharge of any quantity of a hazardous waste.**
3. **An "undeclared" hazardous material is discovered** *(any quantity).*
4. **A cargo tank** *(highway)* **with a capacity >1000 gals suffers structural damage.**

Exceptions to Written Detailed DOT Form F5800.1 Reporting

§171.16(d)

Except for incidents requiring immediate notification, the following types of incidents do not require a detailed written report *(F5800.1):*

- ✓ **A minimal release from a vent; routine operation of a seal, pump, compressor or valve; connecting or disconnecting from a loading/unloading line that does not result in property damage.** *(Per PHMSA, a minimal release is a pint or less)*
- ✓ **Minimal unintentional releases of ORM-D** *or* **PG III material in Class 3, 4, 5, 6.1, 8** *or* **9, if each package < 5.2 gals** *(20 L)* **for liquids or < 66 lbs.** *(30 kg)* **for solids & the aggregate release is < 5.2 gals (liquid) or < 66 lbs (solid).**
- ✓ **The exception does not apply to a hazardous waste, undeclared HM or shipments by air.**

PHMSA's Guide for Preparing Hazardous Materials Incidents Reports *(F5800.1)*

U.S. Department of Transportation

Research and Special Programs Administration

Guide for Preparing Hazardous Materials Incidents Reports

Revised January 2004
Supersedes Previous Edition

Failure Codes for All Packaging Types—Complete List

Code	What Failed
101	Air Inlet
102	Auxiliary Valve
103	Basic Material
104	Body
105	Bolts or Nuts
106	Bottom Outlet Valve
107	Check Valve
108	Chime
109	Closure (e.g., Cap, Top, or Plug)
110	Cover
111	Cylinder Neck or Shoulder
112	Cylinder Sidewall - Near Base
113	Cylinder Sidewall - Other
114	Cylinder Valve
115	Discharge Valve or Coupling
116	Excess Flow Valve
117	Fill Hole
118	Flange
119	Frangible Disc
120	Fusible Pressure Relief Device or Element
121	Gasket
122	Gauging Device
123	Heater Coil
124	High Level Sensor
125	Hose
126	Hose Adaptor or Coupling
127	Inlet (Loading) Valve
128	Inner Packaging
129	Inner Receptacle
130	Lifting Feature
131	Lifting Lug
132	Liner
133	Liquid Line
134	Liquid Valve
135	Loading or Unloading Lines
136	Locking Bar
137	Manway or Dome Cover
138	Mounting Studs
139	O-Ring or Seals
140	Outer Frame
141	Piping or Fittings
142	Piping Shear Section
143	Pressure Relief Valve or Device - Non-Reclosing
144	Pressure Relief Valve or Device -Reclosing
145	Remote Control Device
146	Sample Line
147	Stub Sill (Tank Car)
148	Sump
149	Tank Head
150	Tank Shell
151	Thermometer Well
152	Threaded Connection
153	Vacuum Relief Valve
154	Valve Body
155	Valve Seat
156	Valve Spring
157	Valve Stem
158	Vapor Valve
159	Vent
160	Washout
161	Weld or Seam

Code	How Failed
301	Abraded
302	Bent
303	Burst or Ruptured
304	Cracked
305	Crushed
306	Failed to Operate
307	Gouged or Cut
308	Leaked
309	Punctured
310	Ripped or Torn
311	Structural
312	Torn Off or Damaged
313	Vented

Code	Cause(s) of Failure
501	Abrasion
502	Broken Component or Device
503	Commodity Self-Ignition
504	Commodity Polymerization
505	Conveyor or Material Handling Equipment Mishap
506	Corrosion - Exterior
507	Corrosion - Interior
508	Defective Component or Device
509	Derailment
510	Deterioration or Aging
511	Dropped
512	Fire, Temperature, or Heat
513	Forklift Accident
514	Freezing
515	Human Error
516	Impact with Sharp or Protruding Object (e.g., nails)
517	Improper Preparation for Transportation
518	Inadequate Accident Damage Protection
519	Inadequate Blocking and Bracing
520	Inadequate Maintenance
521	Inadequate Preparation for Transportation
522	Inadequate Procedures
523	Inadequate Training
524	Incompatible Product
525	Incorrectly Sized Component or Device
526	Loose Closure, Component, or Device
527	Misaligned Material, Component, or Device
528	Missing Component or Device
529	Overfilled
530	Over-pressurized
531	Rollover Accident
532	Stub Sill Separation from Tank (Tank Cars)
533	Threads Worn or Cross Threaded
534	Too Much Weight on Package
535	Valve Open
536	Vandalism
537	Vehicular Crash or Accident Damage
538	Water Damage

Failure Codes by Packaging Type
General Non-bulk and IBCs

Code	What Failed
103	Basic Material
104	Body
105	Bolts or Nuts
108	Chime
109	Closure (e.g., Cap, Top, or Plug)
110	Cover
119	Frangible Disc
120	Fusible Pressure Relief Device or Element
121	Gasket
125	Hose
128	Inner Packaging
129	Inner Receptacle
130	Lifting Feature
132	Liner
140	Outer Frame
143	Pressure Relief Valve or Device - Non-Reclosing
144	Pressure Relief Valve or Device - Reclosing
161	Weld or Seam

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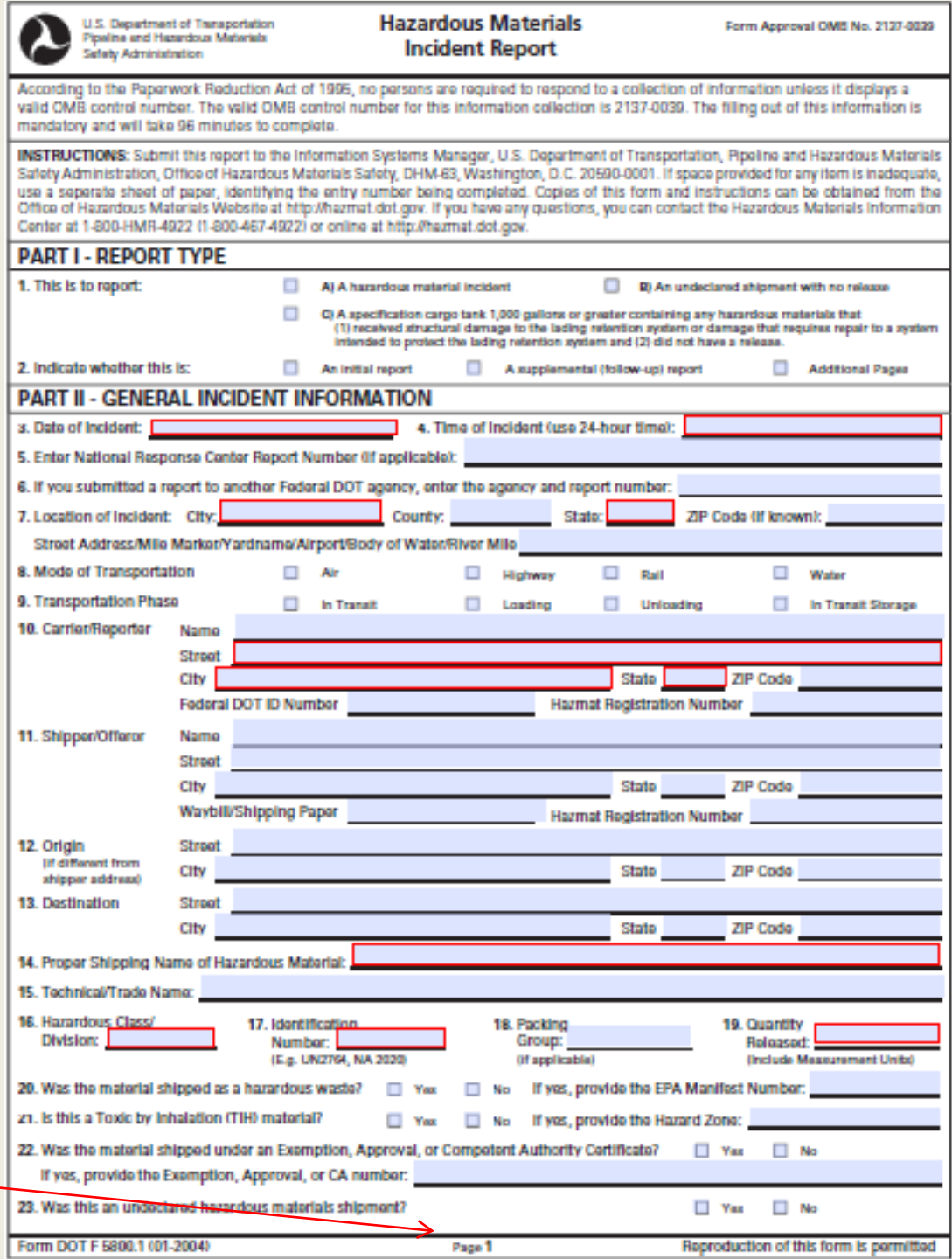
DOT F 5800.1 Form

Report Type

General Information

Page 1 of 4



U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration

Hazardous Materials Incident Report

Form Approval OMB No. 2137-0039

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. This is to report: ☐ A) A hazardous material incident ☐ B) An undeclared shipment with no release
☐ C) A specification cargo tank 1,000 gallons or greater containing any hazardous materials that (1) received structural damage to the lading retention system or damage that requires repair to a system intended to protect the lading retention system and (2) did not have a release.

2. Indicate whether this is: ☐ An initial report ☐ A supplemental (follow-up) report ☐ Additional Pages

PART II - GENERAL INCIDENT INFORMATION

3. Date of Incident: 4. Time of Incident (use 24-hour time):

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

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

7. Location of Incident: City: County: State: ZIP Code (if known):
Street Address/Mile Marker/Yardname/Airport/Body of Water/River Mile

8. Mode of Transportation ☐ Air ☐ Highway ☐ Rail ☐ Water

9. Transportation Phase ☐ In Transit ☐ Loading ☐ Unloading ☐ In Transit Storage

10. Carrier/Reporter
Name
Street
City State ZIP Code
Federal DOT ID Number Hazmat Registration Number

11. Shipper/Offeror
Name
Street
City State ZIP Code
Waybill/Shipping Paper Hazmat Registration Number

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

13. Destination
Street
City State ZIP Code

14. Proper Shipping Name of Hazardous Material:

15. Technical/Trade Name:

16. Hazardous Class/ Division: 17. Identification Number: (E.g. UN2764, NA 2020) 18. Packing Group: (If applicable) 19. Quantity Released: (Include Measurement Units)

20. Was the material shipped as a hazardous waste? ☐ Yes ☐ No If yes, provide the EPA Manifest Number:

21. Is this a Toxic by Inhalation (TIH) material? ☐ Yes ☐ No If yes, provide the Hazard Zone:

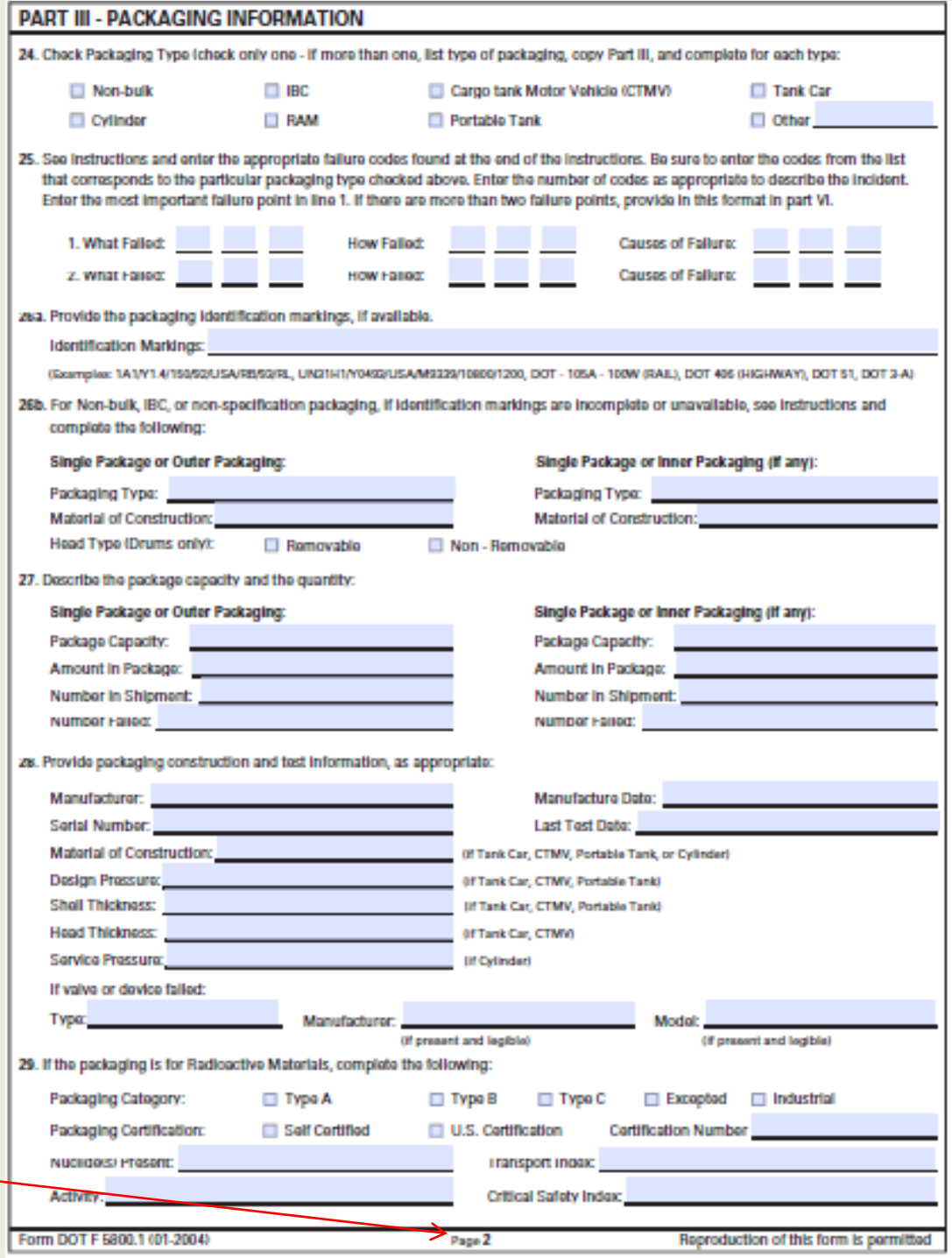
22. Was the material shipped under an Exemption, Approval, or Competent Authority Certificate? ☐ Yes ☐ No
If yes, provide the Exemption, Approval, or CA number:

23. Was this an undeclared hazardous materials shipment? ☐ Yes ☐ No

DOT F 5800.1 Form

-What Failed
-How Failed
-Cause of Failure

Page 2 of 4



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:

☐ Non-bulk ☐ IBC ☐ Cargo tank Motor Vehicle (CTMV) ☐ Tank Car
☐ Cylinder ☐ RAM ☐ Portable Tank ☐ Other

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.

1. What Failed: ___ ___ ___ How Failed: ___ ___ ___ Causes of Failure: ___ ___ ___
2. What Failed: ___ ___ ___ How Failed: ___ ___ ___ Causes of Failure: ___ ___ ___

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

Identification Markings:

(Examples: 1A1/Y1.4/150/92/USA/RB/92/RL, UN31H1/Y0400/USA/M9329/10800/1200, 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:

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

Single Package or Inner Packaging (if any):

Packaging Type:
Material of Construction:

27. Describe the package capacity and the quantity:

Single Package or Outer Packaging:

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

Single Package or Inner Packaging (if any):

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

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

Manufacturer:
Serial Number:
Material of Construction: (If Tank Car, CTMV, Portable Tank, or Cylinder)
Design Pressure: (If Tank Car, CTMV, Portable Tank)
Shell Thickness: (If Tank Car, CTMV, Portable Tank)
Head Thickness: (If Tank Car, CTMV)
Service Pressure: (If Cylinder)

Manufacture Date:
Last Test Date:

If valve or device failed:

Type: Manufacturer: (If present and legible) Model: (If present and legible)

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

Packaging Category: ☐ Type A ☐ Type B ☐ Type C ☐ Excepted ☐ Industrial
Packaging Certification: ☐ Self Certified ☐ U.S. Certification Certification Number
Nuclides Present: Transport Index:
Activity: Critical Safety Index:

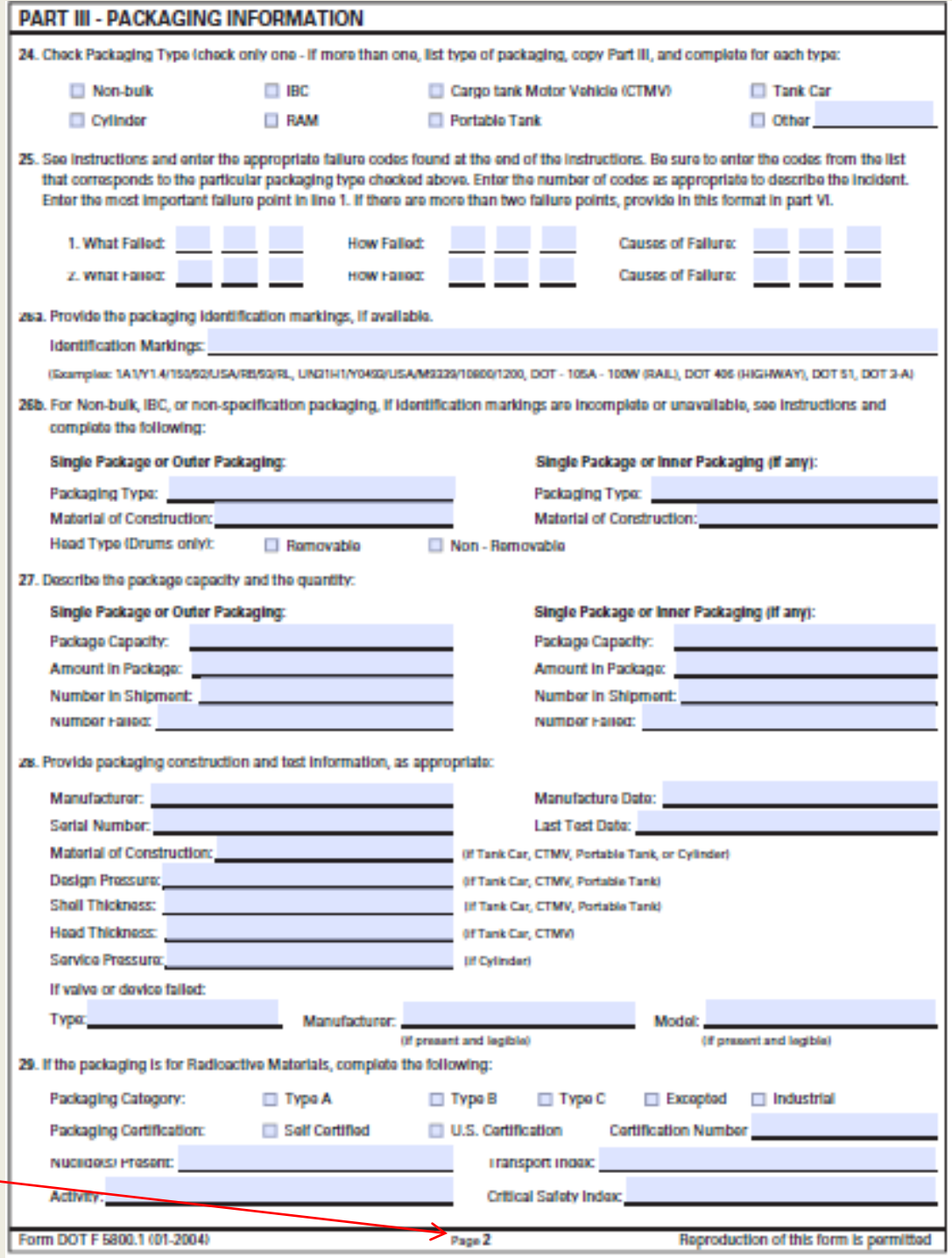
Form DOT F 5800.1 (01-2004) Page 2 Reproduction of this form is permitted

DOT F 5800.1 Form

Packaging Information

- Type
- Car Number
- Specification

Page 2 of 4



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☐ Cylinder ☐ RAM ☐ Portable Tank ☐ Other

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Identification Markings:

(Examples: 1A1/Y1.4/150/92/USA/RB/92/RL, UN31H1/Y0400/USA/M9329/10800/1200, 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:

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

Single Package or Inner Packaging (if any):

Packaging Type:
Material of Construction:

27. Describe the package capacity and the quantity:

Single Package or Outer Packaging:

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

Single Package or Inner Packaging (if any):

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

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

Manufacturer: Manufacture Date:
Serial Number: Last Test Date:
Material of Construction: (If Tank Car, CTMV, Portable Tank, or Cylinder)
Design Pressure: (If Tank Car, CTMV, Portable Tank)
Shell Thickness: (If Tank Car, CTMV, Portable Tank)
Head Thickness: (If Tank Car, CTMV)
Service Pressure: (If Cylinder)

If valve or device failed:

Type: Manufacturer: (If present and legible) Model: (If present and legible)

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

Packaging Category: ☐ Type A ☐ Type B ☐ Type C ☐ Excepted ☐ Industrial
Packaging Certification: ☐ Self Certified ☐ U.S. Certification Certification Number
Nuclides Present: Transport Index:
Activity: Critical Safety Index:

Form DOT F 5800.1 (01-2004) Page 2 Reproduction of this form is permitted

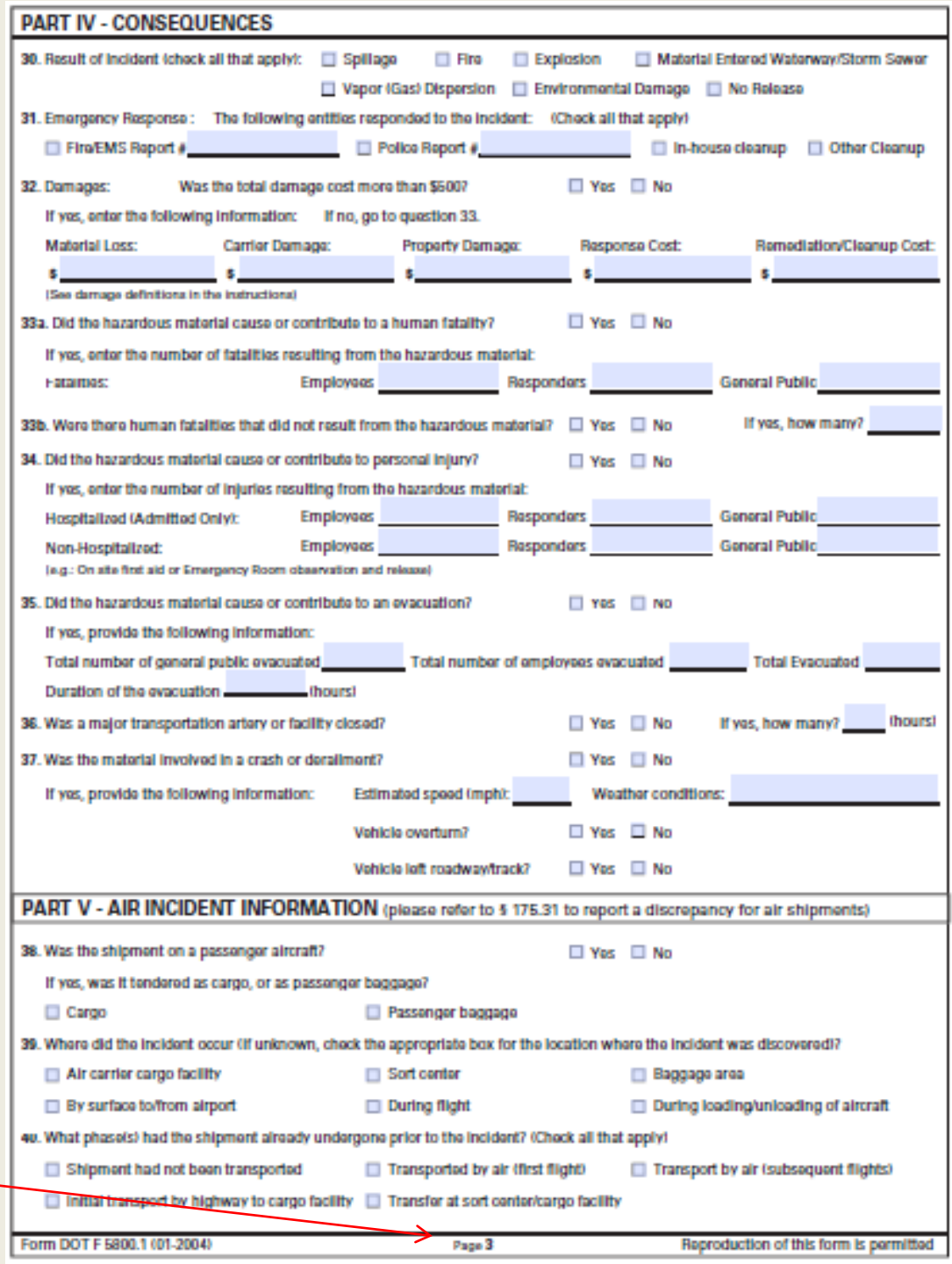
DOT F 5800.1 Form

Consequences

- Damages $$$
- Fatalities
- Injuries
- Evacuations

Disregard Part V

Page 3 of 4



PART IV - CONSEQUENCES

30. Result of incident (check all that apply): ☐ Spillage ☐ Fire ☐ Explosion ☐ Material Entered Waterway/Storm Sewer ☐ Vapor (Gas) Dispersion ☐ Environmental Damage ☐ No Release

31. Emergency Response: The following entities responded to the incident: (Check all that apply)
☐ Fire/EMS Report # _____ ☐ Police Report # _____ ☐ In-house cleanup ☐ Other Cleanup

32. Damages: Was the total damage cost more than $500? ☐ Yes ☐ No
If yes, enter the following information: If no, go to question 33.
Material Loss: $ _____ Carrier Damage: $ _____ Property Damage: $ _____ Response Cost: $ _____ Remediation/Cleanup Cost: $ _____
(See damage definitions in the instructions)

33a. Did the hazardous material cause or contribute to a human fatality? ☐ Yes ☐ No
If yes, enter the number of fatalities resulting from the hazardous material:
Fatalities: Employees _____ Responders _____ General Public _____

33b. Were there human fatalities that did not result from the hazardous material? ☐ Yes ☐ No If yes, how many? _____

34. Did the hazardous material cause or contribute to personal injury? ☐ Yes ☐ No
If yes, enter the number of injuries resulting from the hazardous material:
Hospitalized (Admitted Only): Employees _____ Responders _____ General Public _____
Non-Hospitalized: Employees _____ Responders _____ General Public _____
(e.g.: On site first aid or Emergency Room observation and release)

35. Did the hazardous material cause or contribute to an evacuation? ☐ Yes ☐ No
If yes, provide the following information:
Total number of general public evacuated _____ Total number of employees evacuated _____ Total Evacuated _____
Duration of the evacuation _____ (hours)

36. Was a major transportation artery or facility closed? ☐ Yes ☐ No If yes, how many? _____ (hours)

37. Was the material involved in a crash or derailment? ☐ Yes ☐ No
If yes, provide the following information: Estimated speed (mph): _____ Weather conditions: _____
Vehicle overturn? ☐ Yes ☐ No
Vehicle left roadway/track? ☐ Yes ☐ No

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

38. Was the shipment on a passenger aircraft? ☐ Yes ☐ No
If yes, was it tendered as cargo, or as passenger baggage?
☐ Cargo ☐ Passenger baggage

39. Where did the incident occur (If unknown, check the appropriate box for the location where the incident was discovered)?
☐ Air carrier cargo facility ☐ Sort center ☐ Baggage area
☐ By surface to/from airport ☐ During flight ☐ During loading/unloading of aircraft

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

Form DOT F 5800.1 (01-2004) Page 3 Reproduction of this form is permitted

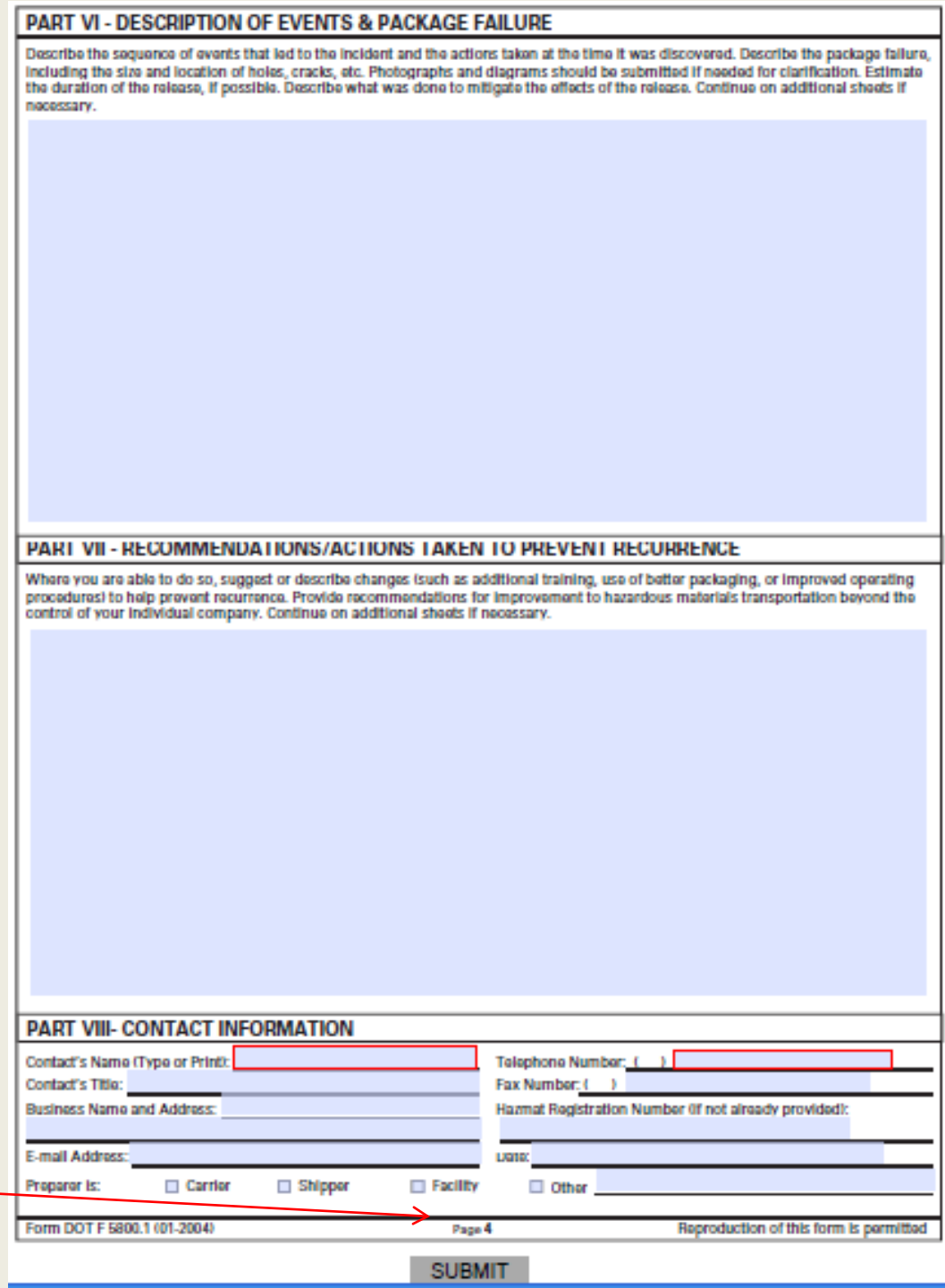
DOT F 5800.1 Form

Narrative Of What Happened

How To Keep From Happening Again

Who Filled Out Report

Page 4 of 4



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.

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.

PART VIII- CONTACT INFORMATION

Contact's Name (Type or Print):
Telephone Number: ( )
Contact's Title:
Fax Number: ( )
Business Name and Address:
Hazmat Registration Number (if not already provided):
E-mail Address:
Date:
Preparer is: Carrier Shipper Facility Other

Form DOT F 5800.1 (01-2004) Page 4 Reproduction of this form is permitted

SUBMIT

Updating the F5800.1 Incident Report

§171.16(c)

A Hazardous Materials Incident Report must be updated within one year of the date of occurrence of the incident whenever:

(1) A death results from injury caused by a hazardous material.

(2) There was misidentification of the hazardous material or package information on a prior incident report.

(3) Damage, loss or related cost that was not known when the initial incident report was filed becomes known; *or*

(4) Damage, loss or related cost changes by $25,000 or more, or 10% of the prior total estimate, whichever is greater.

Failure to file an F5800.1 report with DOT = $4000.00 penalty guideline – *App. B to Part 209*

Failure to provide immediate notice of certain HM incidents = $6000.00 penalty guideline – *App. B to Part 209*

www.phmsa.dot.gov

- DOT F5800.1 HM incident reporting
- HM Information
- Interpretations
- HM Registration
- Incident data
- Publications
- DOT Special Permits
- etc.

Do you know the difference between Special Permits & Approvals ?

Quick Review:

Where are the reporting requirements found?

-49 C.F.R. 171. 15

-49 C.F.R. 171.16

-49 C.F.R. 225.09

What form is used to give written notification?

-DOT 5800.1

Four most common errors on a DOT 5800.1 Report are?:

1. Mode Of Transportation

2. Package Type

3. Car Number

4. Specification

Reporting Hazmat Incidents

Immediate Notification

§171.15

(No later than 12 hours after the occurrence of an incident)

National Response Center

(800) 424-8802 *or* (202) 267-2675

As a direct result of hazmat:

- ✓ **A person is killed or,**
- ✓ **Injury requiring hospitalization**
- ✓ **Evacuation lasting > 1 hr.**
- ✓ **Major artery or facility closed > 1hr.**
- ✓ **Radioactive contamination**
- ✓ **Etiologic contamination**
- ✓ **Release of a Marine Pollutant > 119 gals (liquid) or 882 lbs. (solid)**

Reporting Railroad Incidents

Immediate Notification

§225.9

(No later than 12 hours after the occurrence of an incident)

National Response Center

(800) 424-8802 *or* **(800) 424-0201**

Types of accidents / incidents and other events to be reported:

✓ **Certain deaths or Injuries:**

-Death of a rail passenger or a railroad employee

-Death of an employee of a contractor performing work for the railroad on railroad property.

-Death or Injury of 5 or more persons.

✓ **Train accidents on or fouling passenger service mainlines**

-That involves a collision or derailment on a mainline that is used for scheduled passenger service.

-That at fouls the main line used for scheduled passenger service


Questions on reporting
hazmat incidents ?