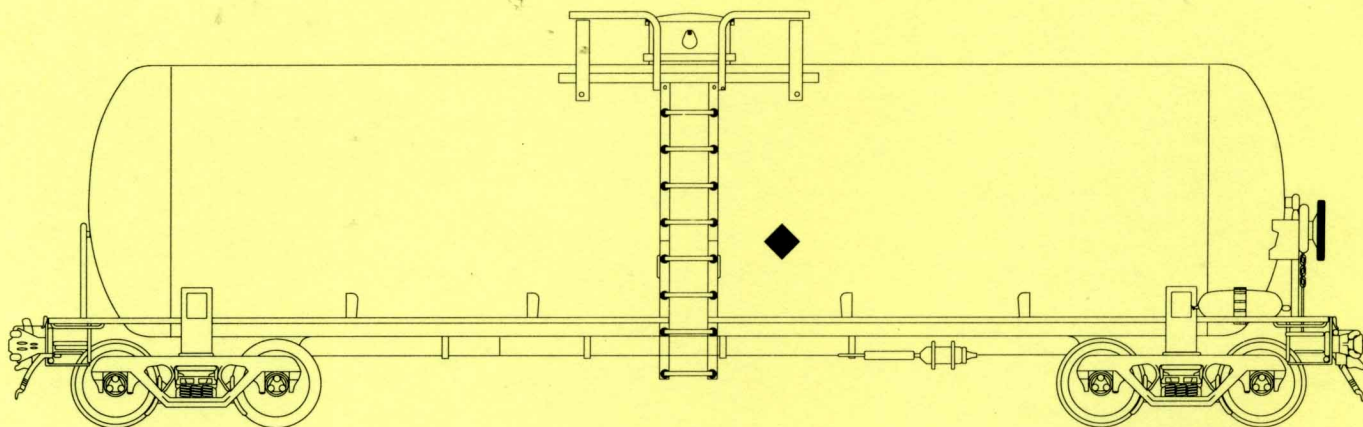




HAZARDOUS MATERIALS EMERGENCY RESPONSE PROCEDURE



**Consolidated Rail Corporation
Safety Department
2001 Market Street 9-A
P. O. Box 41409
Philadelphia, PA 19101-1409**

To The Emergency Responder:

The information contained in this booklet deals with emergency preparedness for railroad hazardous materials incidents. Such incidents are rare, and it is unlikely that you will ever confront one. However, in the event that you do, the information provided here will enhance your ability to manage such incidents.

The Consolidated Rail Corporation is involved in a program designed to improve preparedness by ensuring that local emergency response personnel are familiar with Conrail's information systems. Conrail has several methods to determine the commodities involved in a hazardous materials incident and various ways to provide information on the proper emergency response, if necessary. Familiarity with these sources of information is essential during an emergency. Additionally, the program outlines the procedures utilized by Conrail during an incident and emphasizes the need for coordination between the railroad and the local emergency response units.

Conrail believes that this information will benefit all emergency response personnel and the reproduction of this material is encouraged so that all interested parties can have a booklet to study. If you are unable to reproduce it, please let us know how many additional booklets are needed and we will try to supply them.

For any further information, requests, questions or comments contact Conrail's

Director—Hazardous Materials
2001 Market Street 9-A
P.O. Box 41409
Philadelphia, PA 19101-1409

Included In This Booklet:

- A guide and flow chart which explains the various ways of accessing information on commodities involved in an incident, emergency response procedures and the various agencies with response capabilities (page 1 and 1-A);
- A guide showing rail car markings and placarding and a diagram of a tank car which can be utilized in accessing Conrail's computer information system (page 2 and 2-A);
- An example of a Conrail waybill for a Hazardous Materials shipment (page 3 and 3-A);
- An example of a Conrail hazardous commodity description identifying the commodity and providing emergency response information (page 4 and 4-A);
- A poster and a listing of Conrail's division movement desks and Police Department—manned 24 hours a day from which emergency response information can be obtained. Write both numbers on the poster and display it where your dispatcher can refer to it quickly in an emergency situation. It is suggested, as well, that the numbers be tested on a regular basis so that any changes can be noted at the earliest possible time (page 5 and 5-A).

HAZARDOUS MATERIALS EMERGENCY RESPONSE PROCEDURES

In the event of a rail-related accident, there are **three** important tasks to be accomplished:

1. Determine what, if any, hazardous materials are involved;
2. Determine the proper emergency response or treatment; and
3. Effect the emergency response or treatment.

Upon arrival at the scene of a rail-related accident, it can be determined what, if any, hazardous materials are involved by checking the following sources:

- name and class of hazardous commodity on waybills held by a member of the train crew (see page 3 and 3-A);
- name of commodity stenciled on tank car (see page 2-A); or
- name and class of hazardous commodity retrieved by telephoning Conrail's 24-hour movement desk number (see page 5). Car number can be fed into computer terminal and commodity identified along with emergency handling instructions.

After identifying commodity, appropriate emergency response or treatment may be obtained from one of the following sources:

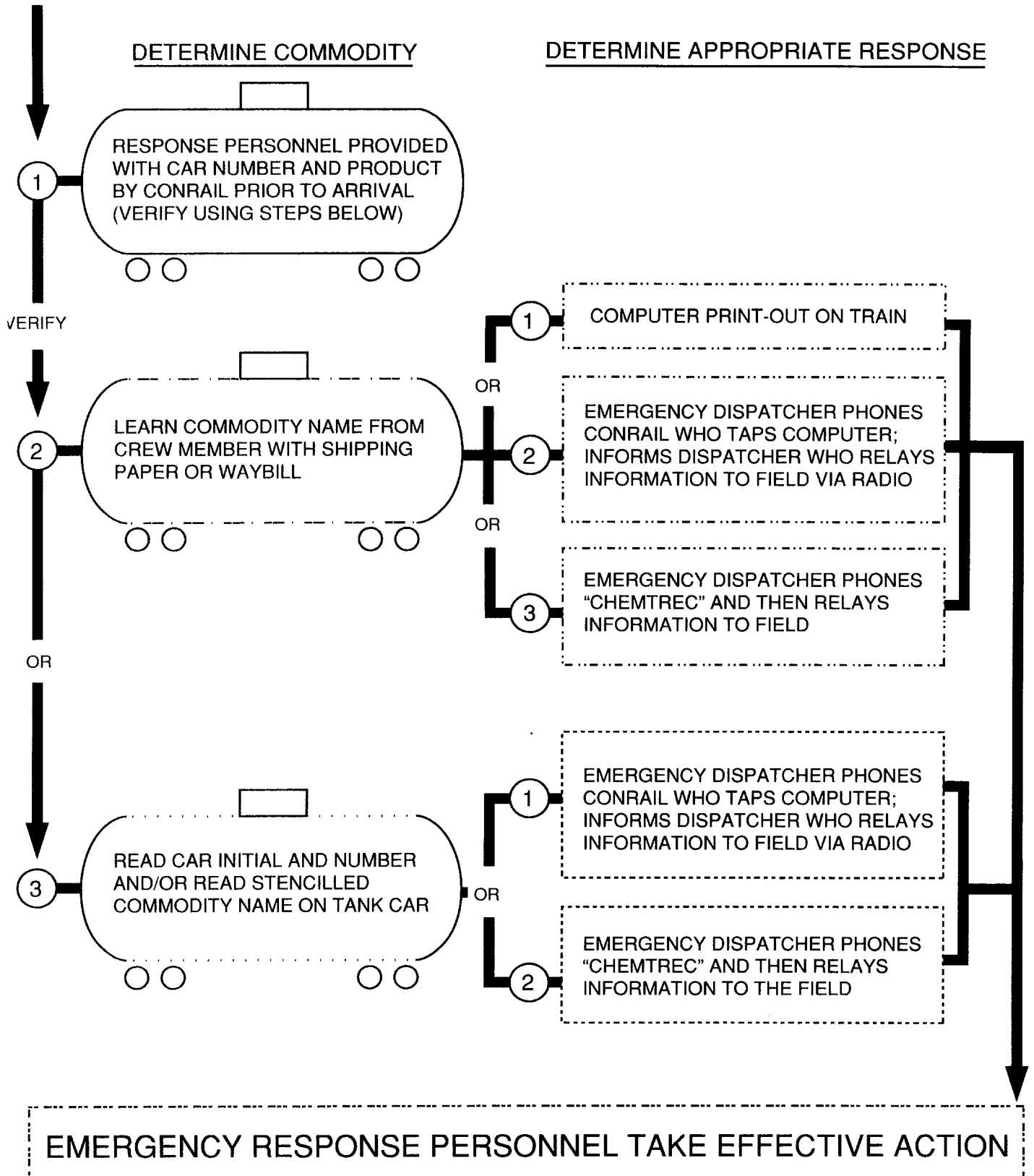
- computer printout of each commodity on train held by the conductor or engineman (see page 4 and 4-A); or
- Chemtrec, the public service and information office of the Chemical Manufacturers Association. Toll free 24-hour telephone number in Washington, DC is (800) 424-9300.

Although responsibility for handling a hazardous materials incident lies primarily with local fire and emergency personnel, Conrail routinely supplements these local actions by:

- notifying Chemtrec of location of incident and commodity involved. Chemtrec, in turn, immediately notifies either an industrial emergency response team or the shipper who can assist local emergency personnel in dealing with the incident;
- notifying the AAR's Bureau of Explosives which has regional emergency response personnel who can assist local fire and emergency groups; and
- utilizing the services of commercial firms which specialize in hazardous materials cleanup efforts at derailment sites.

STANDARD OPERATING PROCEDURE IN HAZARDOUS MATERIALS INCIDENTS












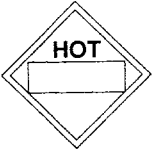

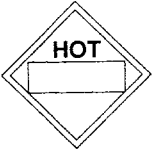

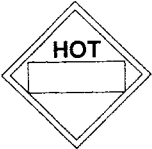

EMERGENCY RESPONSE PERSONNEL ARRIVE ON SCENE



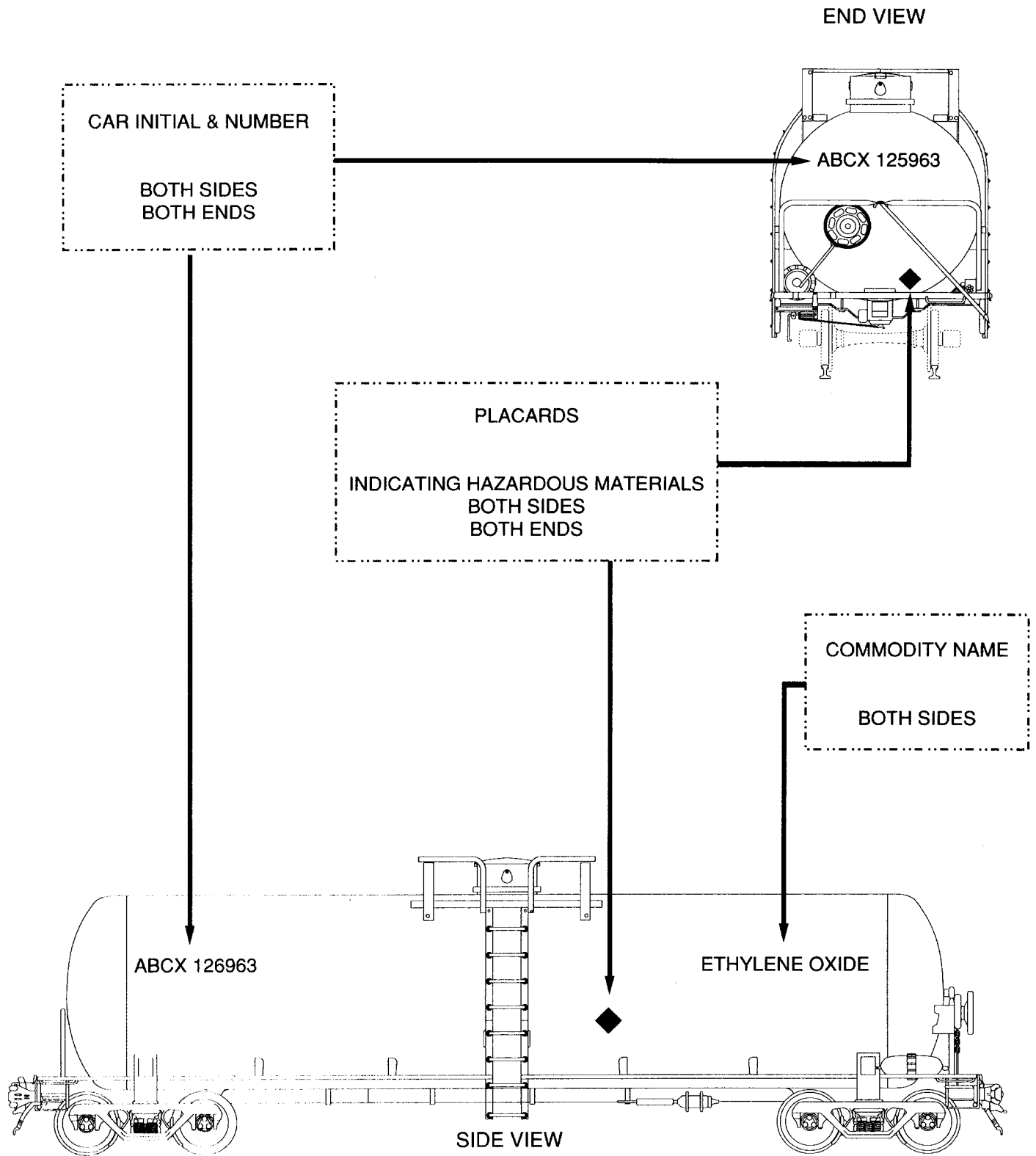
WHAT WILL RAIL CAR MARKINGS AND PLACARDS TELL YOU AS AN EMERGENCY RESPONDER?

- **Car initial and number** — Needed to access Conrail's Information System. Letter prefix often indicates the owner/shipper of the car (i.e. DUPX = Dupont, DOWX = Dow Chemical, UTLX = Union Tank Car Co.)
- **Commodity Name** — The DOT requires that approximately 40 hazardous materials have their name stencilled on the side of the tank car.
- **Placards** — Tell you that the commodity is hazardous.
 - Tell if the car is loaded or contains a residue.
 - Provide the DOT's identification number on tank cars either on a numbered placard, or on an orange panel.
 - Provide the hazard class of the material.

HOW DO PLACARDS COMMUNICATE TO THE EMERGENCY RESPONDER?

SHAPE	+	SYMBOL	+	COLOR	+	HAZARD CLASS NO.	=	HAZARD
A Square White Background Placard 				ORANGE		1		EXPLOSIVES
A Numbered Placard 				GREEN		2		NON-FLAMMABLE GAS
A Placard and an Orange Panel  				RED RED/WHITE BLUE		2 3 4 4		FLAMMABLE GAS FLAMMABLE LIQUID FLAMMABLE SOLID DANGEROUS WHEN WET
				YELLOW		2 5.1 5.2		OXYGEN OXIDIZER ORGANIC PEROXIDE
				WHITE		2 6		POISON GAS POISON
				YELLOW/WHITE		7		RADIOACTIVE
				BLACK		8		CORROSIVE
				BLACK & WHITE		9		MISCELLANEOUS

TANK CAR DIAGRAM



WHAT WILL THE SHIPPING PAPERS TELL YOU AS AN EMERGENCY RESPONDER?

Car Initials and Number: One of the most important reference points to obtain in order to access information on the car's contents.

Load or Empty: The shipping paper will indicate if the car is loaded or contains a residue of a product.

Shipper and Consignee: Indicates who shipped the car and where it originated from. Consignee area will show who is receiving the shipment and the destination.

Commodity: The proper shipping name of the product will be listed.

Hazard Class: Shows the appropriate hazard class of the product. There are nine major hazard classes: explosives, gases, flammable liquids, flammable solids, oxidizing substances, poisonous and infectious substances, radioactive substances, corrosives and miscellaneous substances.

Identification Number: Indicates the 4-digit UN (United Nations) or NA (North American) identification number.

Quantity: The shipping paper will indicate how much product is being shipped, if loaded.

Poison-Inhalation Hazard: (P.I.H.) indicates certain gases and liquids that may cause health problems if breathed in very low concentration for short periods of time.

Placards: States what type placards are on the car.

Reportable Quantity Symbol: The letters "RQ" indicate that the material is also classified as a hazardous substance and that a release of the product, over a specified amount, necessitates notifying the national response center.

Standard Transportation Commodity Code: List the appropriate commodity number for the specific product being shipped. If the number begins with the numbers "49" or "48" the commodity is hazardous.

Other Information: Besides those items listed above, the shipping paper may also tell you if:

- The product is a poison inhalation hazard
- There is a secondary hazard class
- There is a telephone number to be used in an emergency

19000000000000

* DANGEROUS *

00000 31 FUS

96

LOAD/EMPTY INDICATION

▶ PSPX 23519 L TX 57FLLIQ MIDDLETOW NY GENPAK MIDDMNJ D

1111 3445 XD 07/07/93 078986

CAR INITIAL & NUMBER

PLACARD ENDORSEMENT

MIDDLETOWN

NY 53600 BORGER TX

ATSF ESTL CR MDLTN MNJ

▶ PHILLIPS 66 COMPANY
LAST REV. TO WB 07/17/93 0604 RRM
S 930707 12 23519

GENL PAK CORP
AGWAY STATION

SHIPPER
CONSIGNEE
"STCC" NUMBER
PROPER SHIPPING NAME
HAZARD CLASS
IDENTIFICATION NUMBER
PACKING GROUP
PLACARD NOTATION

49 081 92
1 HAZARDOUS SHIPMENT
HAZARDOUS MATERIAL
DESCRIPTION
1 TANK
ISOPENTANE
3
UN1265
PG I
PLACARDED
FLAMMABLE
ENDORSED AS:
DANGEROUS
HAZMAT STCC= 4908192

TO BE PRPAID

114735

EMERGENCY CONTACT

CHEMTREC 1-800-424-9300

BUOIO BUFFRONTINY CORNING NY

1 0720 0400

CR 6503CE
CR 6777XE

Table with columns: BUFFRONTINY SILSPRINGNY, ARR DATE-TIME, ZONE, TRACK. Rows 1-7 listing various commodities like AN, ACFX, TASD, CR with their respective arrival times and track assignments.

Table with columns: BUFFRONTINY CORNING NY BINGHAMTONY, ARR DATE-TIME, ZONE, TRACK. Rows 8-17 listing commodities like CR, ACFX, ADMX, UTLX, NW, CSXT, PLMX, CP with their arrival times and track assignments.

18 PSPX 23519 L TO6X057FLLIQMIDDLETOWNYGENPAK MIDDMNJ T94 DX986 INBU8 0119

***** 1 T/C ISOPENTANE
* DANGEROUS *
UN1265
IN CASE OF EMERGENCY CALL PG I
1-800-424-9300 114735 POUNDS
PLACARDED: FLAMMABLE
HAZMAT STCC = 4908192

TO/CONSIGNEE: GENL PAK CORP DESTINATION: MIDDLETO NY
FROM/SHIPPER: PHILLIPS 66 COMPANY ORIGIN: BORGER TX
19 ETCX 30011 L TO8X091FLLIQHARRIMAN NYNEPCHEMIC T94 DX783 INBU8 0119

***** 1 T/C ACETALDEHYDE
* DANGEROUS *
UN1089
IN CASE OF EMERGENCY CALL RQ (ACETALDEHYDE)
1-800-424-9300 182516 POUNDS
PLACARDED: FLAMMABLE
HAZMAT STCC = 4907210

TO/CONSIGNEE: NEPERA CHEMICAL CO DESTINATION: HARRIMAN NY
FROM/SHIPPER: TEXAS EASTMAN CO ORIGIN: LONGVIEW TX
20 UTLX201178 L TO8X091FLLIQHARRIMAN NYNEPCHEMIC T94 DX784 INBU8 0119

***** 1 T/C ACETALDEHYDE
* DANGEROUS *
UN1089
IN CASE OF EMERGENCY CALL RQ (ACETALDEHYDE)
1-800-424-9300 182665 POUNDS
PLACARDED: FLAMMABLE
HAZMAT STCC = 4907210

TO/CONSIGNEE: NEPERA CHEMICAL CO DESTINATION: HARRIMAN NY
FROM/SHIPPER: TEXAS EASTMAN CO ORIGIN: LONGVIEW TX
21 CNW 162282 L B6IA075MFGPDMONTGOMERNYSERMERCHA T94 G3351 INBU8 0119

NOTICE OF PLACARDED CARS CONTAINING HAZARDOUS MATERIALS

NO: _____ STATION: BUFFRONTI NY DATE: 07/20/93

TO C & E TRAIN: BU010 ENGINE: CR 6503 TOTAL CARS: 78

THE FOLLOWING LOADED AND EMPTY PLACARDED CARS ARE LOCATED IN YOUR TRAIN AS FOLLOWS:

(THEY MUST BE POSITIONED IN YOUR TRAIN IN ACCORDANCE WITH HAZARDOUS MATERIALS REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION. USE REVISION COLUMNS FOR CHANGES EN ROUTE.)

INIT	NUMBER	L / E	KIND OF PLACARDS	I.D. NUMBER	KEY	CARS FROM ENGINE REVISION		
						ORIG	1ST	2ND
PSPX	23519	L	FLAMMABLE	1265	-	18	_____	_____
ETCX	30011	L	FLAMMABLE	1089	-	19	_____	_____
UTLX	201178	L	FLAMMABLE	1089	-	20	_____	_____
GATX	90745	L	CORROSIVE	1824	-	25	_____	_____
NATX	28200	E	COMBUSTIBLE RESIDUE	1170	-	36	_____	_____
GATX	90700	L	CORROSIVE	1824	-	62	_____	_____
_____	_____	-	_____	_____	-	_____	_____	_____
_____	_____	-	_____	_____	-	_____	_____	_____
_____	_____	-	_____	_____	-	_____	_____	_____
_____	_____	-	_____	_____	-	_____	_____	_____
_____	_____	-	_____	_____	-	_____	_____	_____

DELIVERED TO: _____

TIME: _____ DATE: _____ YARD MASTER: _____

NOTE: TO BE FILLED OUT IN TRIPLICATE, ONE COPY TO BE GIVEN CONDUCTOR, ONE TO ENGINEMAN, AND THE THIRD COPY FILED.

SIGNATURES OF YARD MASTER AS WELL AS PERSON TO WHOM DELIVERED, TIME AND DATE, MUST APPEAR ON ALL COPIES.

*07261543
U4J.IBM
500=
HAZ=4908192

* * H A Z A R D O U S C O M M O D I T Y D E S C R I P T I O N * *

COMMODITY CODE - 4908192

ISOPENTANE
CLASS 3 (FLAMMABLE LIQUID)

4908192
UN1265

ISOPENTANE IS A CLEAR COLORLESS LIQUID HAVING A PETROLEUM-LIKE ODOR. IT HAS A FLASH POINT OF -70 DEG. F. A BOILING POINT OF 82 DEG. F. IT IS LIGHTER THAN WATER AND INSOLUBLE IN WATER. ITS VAPORS ARE HEAVIER THAN AIR.

IF MATERIAL ON FIRE OR INVOLVED IN FIRE
DO NOT EXTINGUISH FIRE UNLESS FLOW CAN BE STOPPED
USE WATER IN FLOODING QUANTITIES AS FOG
SOLID STREAMS OF WATER MAY SPREAD FIRE
COOL ALL AFFECTED CONTAINERS WITH FLOODING QUANTITIES OF WATER
APPLY WATER FROM AS FAR A DISTANCE AS POSSIBLE
USE FOAM, DRY CHEMICAL, OR CARBON DIOXIDE

IF MATERIAL NOT ON FIRE AND NOT INVOLVED IN FIRE
KEEP SPARKS, FLAMES, AND OTHER SOURCES OF IGNITION AWAY
KEEP MATERIAL OUT OF WATER SOURCES AND SEWERS
BUILD DIKES TO CONTAIN FLOW AS NECESSARY
ATTEMPT TO STOP LEAK IF WITHOUT UNDUE PERSONNEL HAZARD
USE WATER SPRAY TO KNOCK-DOWN VAPORS

PERSONNEL PROTECTION
AVOID BREATHING VAPORS
KEEP UPWIND
WEAR APPROPRIATE CHEMICAL PROTECTIVE GLOVES, BOOTS AND GOGGLES
DO NOT HANDLE BROKEN PACKAGES UNLESS WEARING
APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT
WASH AWAY ANY MATERIAL WHICH MAY HAVE CONTACTED THE BODY
WITH COPIOUS AMOUNTS OF WATER OR SOAP AND WATER

EVACUATION
IF FIRE BECOMES UNCONTROLLABLE OR CONTAINER IS EXPOSED TO DIRECT FLAME -
CONSIDER EVACUATION OF ONE-THIRD (1/3) MILE RADIUS
IF MATERIAL LEAKING (NOT ON FIRE) CONSIDER EVACUATION FROM
DOWNWIND AREA BASED ON AMOUNT OF MATERIAL SPILLED,
LOCATION AND WEATHER CONDITIONS

FIRST AID RESPONSES
MOVE VICTIM TO FRESH AIR; CALL EMERGENCY MEDICAL CARE.
IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION.
IF BREATHING, IS DIFFICULT, GIVE OXYGEN.
IN CASE OF CONTACT WITH MATERIAL, IMMEDIATELY FLUSH SKIN OR EYES WITH
RUNNING WATER FOR AT LEAST 15 MINUTES.
REMOVE AND ISOLATE CONTAMINATED CLOTHING AND SHOES AT THE SITE.

WHAT WILL THE HAZARDOUS COMMODITY DESCRIPTION TELL YOU AS AN EMERGENCY RESPONDER?

Standard Transportation Commodity Code: The 7-digit number that if beginning with the number "49" indicates a hazardous material. If the number begins with "48" the product is a hazardous waste.

Proper Shipping Name: The correct product name will be listed.

Hazard Class: Indicates the appropriate hazard class of the product.

Secondary Hazards: The commodity description will indicate if there is more than one hazard associated with the product.

Hazardous Substance/Marine Pollutant: DOT regulated commodities that are identified by the E.P.A. as hazardous substances and by the Coast Guard as marine pollutants.

Reportable Quantity: Indicates that the product is considered to be a hazardous substance and that the release of a specified amount requires notifying the national response center.

Identification Number: Provides the 4-digit UN (United Nations) or NA (North American) product identification number.

General Information: Provides information as to color and odor of the commodity, uses, and other characteristics useful to the emergency responder.

Guidelines to follow if the material is involved in a fire.

Guidelines to follow if the material has spilled and is not involved in a fire.

Guidelines for the use of personal protective equipment.

Guidelines to follow if an evacuation is being considered.

First Aid guidelines for the product involved.

* * H A Z A R D O U S C O M M O D I T Y D E S C R I P T I O N * *

COMMODITY CODE - 4920108

ETHYLENE OXIDE

4920108

DIVISION 2.3 (POISON GAS)

UN1040

ENVIRONMENTALLY HAZARDOUS SUBSTANCE (RQ-10/4.54)

ETHYLENE OXIDE IS A CLEAR, COLORLESS, VOLATILE LIQUID WITH AN ETHEREAL ODOR. IT IS USED TO MAKE OTHER CHEMICALS, AS A FUMIGANT AND INDUSTRIAL STERILANT. IT HAS A FLASH POINT OF LESS THAN 0. DEG. F, AND IS FLAMMABLE OVER A WIDE VAPOR-AIR CONCENTRATION RANGE. THE MATERIAL HAS TO BE DILUTED ON THE ORDER OF 24 TO 1 WITH WATER BEFORE THE LIQUID LOSES ITS FLAMMABILITY. IF CONTAMINATED IT MAY POLYMERIZE VIOLENTLY WITH EVOLUTION OF HEAT AND RUPTURE OF ITS CONTAINER. THE VAPORS MAY BURN INSIDE A CONTAINER. THE VAPORS ARE IRRITATING TO THE EYES, SKIN, AND RESPIRATORY SYSTEM. PROLONGED CONTACT WITH THE SKIN MAY RESULT IN DELAYED BURNS. IT IS LIGHTER THAN WATER AND SOLUBLE IN WATER. THE VAPORS ARE HEAVIER THAN AIR. ETHYLENE OXIDE MAY READILY VAPORIZE AND FORM A GASEOUS CLOUD. THE VAPORS ARE VERY TOXIC.

IF MATERIAL ON FIRE OR INVOLVED IN FIRE

DO NOT EXTINGUISH FIRE UNLESS FLOW CAN BE STOPPED

USE WATER IN FLOODING QUANTITIES AS FOG

SOLID STREAMS OF WATER MAY BE INEFFECTIVE

COOL ALL AFFECTED CONTAINERS WITH FLOODING QUANTITIES OF WATER

APPLY WATER FROM AS FAR A DISTANCE AS POSSIBLE

USE "ALCOHOL" FOAM, DRY CHEMICAL OR CARBON DIOXIDE

IF MATERIAL NOT ON FIRE AND NOT INVOLVED IN FIRE

KEEP SPARKS, FLAMES, AND OTHER SOURCES OF IGNITION AWAY

KEEP MATERIAL OUT OF WATER SOURCES AND SEWERS

BUILD DIKES TO CONTAIN FLOW AS NECESSARY

ATTEMPT TO STOP LEAK IF WITHOUT UNDUE PERSONNEL HAZARD

USE WATER SPRAY TO DISPERSE VAPORS AND

DILUTE STANDING POOLS OF LIQUID

PERSONNEL PROTECTION

AVOID BREATHING VAPORS

KEEP UPWIND

WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS

AVOID BODILY CONTACT WITH THE MATERIAL

WEAR APPROPRIATE CHEMICAL PROTECTIVE CLOTHING

DO NOT HANDLE BROKEN PACKAGES UNLESS WEARING

APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT

WASH AWAY ANY MATERIAL WHICH MAY HAVE CONTACTED THE BODY

WITH COPIOUS AMOUNTS OF WATER OR SOAP AND WATER

EVACUATION

IF FIRE IS PROLONGED AND MATERIAL IS CONFINED IN THE CONTAINER -

CONSIDER EVACUATION OF ONE (1) MILE RADIUS

IF FIRE BECOMES UNCONTROLLABLE OR CONTAINER IS EXPOSED TO DIRECT FLAME -

CONSIDER EVACUATION OF ONE (1) MILE RADIUS

FIRST AID RESPONSES

MOVE VICTIM TO FRESH AIR; CALL EMERGENCY MEDICAL CARE.

IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION.

IF BREATHING, IS DIFFICULT, GIVE OXYGEN.

REMOVE AND ISOLATE CONTAMINATED CLOTHING AND SHOES AT THE SITE.

IN CASE OF CONTACT WITH MATERIAL, IMMEDIATELY FLUSH SKIN OR EYES WITH

RUNNING WATER FOR AT LEAST 15 MINUTES.

KEEP VICTIM QUIET AND MAINTAIN NORMAL BODY TEMPERATURE.

EFFECTS MAY BE DELAYED, KEEP VICTIM UNDER OBSERVATION.

**WHO DO YOU CONTACT IN THE EVENT
OF A RAIL RELATED EMERGENCY?**

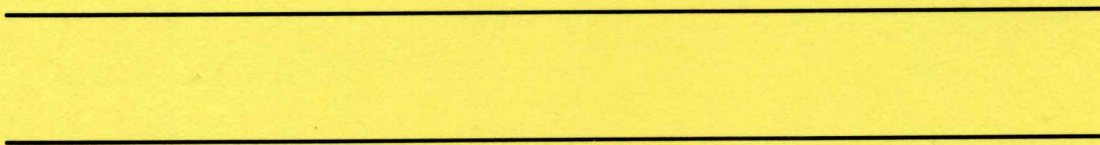
CONRAIL'S 24-HOUR DIVISION MOVEMENT DESK NUMBERS

DIVISION	LOCATION	NUMBER
Philadelphia	Philadelphia, PA	(609) 231-2387
Albany	Selkirk, NY	(518) 767-6123
Harrisburg	Harrisburg, PA	(717) 541-2208
Pittsburgh	Pittsburgh, PA	(412) 928-7978
Dearborn	Dearborn, MI	1-800-937-5677
Indianapolis	Indianapolis, IN	(317) 267-4520
Conrail Police	Systemwide	* 1-800-272-0911

* (Calls automatically routed to Radio Desk responsible for your location).



**HAZARDOUS MATERIALS
EMERGENCY
TELEPHONE NUMBERS**



**Consolidated Rail Corporation
Safety Department
2001 Market Street 9-A
P. O. Box 41409
Philadelphia, PA 19101-1409**