Revised February, 1986

PH-GL-418: SELECTION, INSPECTION, LOADING AND SHIPPING OF PACKAGED GOODS ON SEMITRAILER UNITS

1. POLICY

Since the Sarnia Division loads and unloads many semitrailer units each day, it is essential to develop safe procedures for handling the units.

2. SCOPE

This guideline defines the safety equipment and procedures for the safe handling of semitrailers at loading and off-loading spots.

3. LEGAL REQUIREMENTS

The Transportation of Dangerous Goods Regulations - 1985.

4. RESPONSIBILITIES

4.1 Warehouse Department

4.1.1 To order semitrailers suitable for safely transporting Division products.

4.1.2 To provide trained manpower in the form of supervision and fork truck drivers to area supervision on request for the purpose of loading/unloading semitrailers.

4.1.3 To coordinate routine maintenance on fork trucks operated by Warehouse personnel when required at area expense.

4.1.4 To assume the responsibilities listed under 3.2 - Area Supervision (Items 3.2.2 - 3.2.5) when providing loading/unloading service to Area Supervision.

4.2 Area Supervision

4.2.1 To provide and maintain in proper workable condition the following:

(a) Wheel Chocks
(b) Chock rack or holder
(c) Trailer Jacks
(d) Concrete or steel dolly pads
(e) Blocks (substitute for pads)
(f) Loading plates or ramps, with sufficient strength to accommodate fork truck plus load and with locking legs or chains to prevent slipping.

4.2.2 To ensure that trailers "dropped" for loading or unloading, have the dolly wheels placed on concrete or steel pads.

4.2.3 To ensure only properly trained fork truck operators are permitted to load trailers.

RESPONSIBILITIES cont'd.

4.2.4 To ensure fork truck operators and loading crews have been properly trained in the safe operating procedures for loading of semitrailers.

4.2.5 To ensure special precautions are taken to prevent tipping of non-standard trailers ("pups" and/or containers) when the tractor has been removed.

4.2.6 To ensure loading personnel are aware of the hazards (toxicity, flammability, etc.) of the products they are loading/unloading and know the action to be taken in the event of a package failure or puncture.

4.3 Semitrailer Truck Firms

4.3.1 To provide equipment suitable for the safe loading and transportation of Division products.

4.3.2 To provide drivers who are knowledgeable in the safe handling of semitrailers.

4.3.3 To ensure drivers recognize their responsibilities to follow Dow Safe Operating Procedures while within the confines of the Sarnia Division and to remain with their units unless given permission by supervision to do otherwise.

4.3.4 To instruct drivers that it is their responsibility to install wheel chocks once the trailer has been "spotted" for loading/unloading whether the tractor has been uncoupled or not.

4.3.5 To instruct drivers that it is their responsibility to remove the chocks from the trailer wheels, on completion of loading/unloading, and to place the chocks in the rack or holder provided.

In those instances where a trailer has been "dropped" and a trailer jack installed by Dow personnel, driver must not remove the wheel chocks until Dow personnel have removed the trailer jack.

4.4 Employee

4.4.1 To operate according to written loading/unloading procedures.

4.4.2 To inform supervision of problems with defective equipment or abnormal conditions.

4.4.3 To wear the personal protective equipment required for the job.

4.4.4 To inspect, prior to loading, the equipment provided by the carrier to ensure it is suitable for the material to be loaded. (See Appendix "A")

4.4.5 To ensure that trucks have been properly tagged and placarded prior to leaving the loading area.

5. LOADING AND UNLOADING PROCEDURES

5.1 All loading or unloading operations should be covered by written operating procedures. These procedures must contain the following items as a minimum requirement and must be reviewed with the individuals authorized to perform the loading/unloading operation.

5.1.1 Only personnel authorized and where Dangerous Goods are being handled properly certified by the Department whose product is involved should load or unload semi-trailer units.

5.1.2 Tractor motors should be shut down, brakes "set" and wheel chocks installed prior to commencement of the loading/unloading operation. As an additional precaution, the hanging of a sign on the tractor steering wheel stating "Work in Progress" is strongly recommended.

5.1.3 For "dropped trailers", in addition to the installation of wheel chocks, a trailer jack must be placed under the front of the trailer and be in contact with the trailer floor support beam.

5.1.4 Drivers must remain with their equipment unless given permission by Dow supervision to do otherwise. Should this permission be granted, it is the responsibility of the person giving the permission to know where the driver will be and to ensure he obeys company safety rules and personal protective equipment requirements.

5.1.5 A trailer to be loaded/unloaded, without dock facilities, must have a least one rear wheel chocked both front and rear.

5.1.6 Trailer interiors must be thoroughly inspected prior to loading to ensure they are suitable for the load to be carried. (See Appendix "A")

5.1.7 On completion of the loading/unloading operation, the safety jack on dropped trailers and the warning sign on steering wheels should be removed.

5.1.8 Loaded units must be properly tagged and placarded before being permitted to leave the loading area.

6. TAGGING AND PLACARDING

6.1 Tagging

An E/R tag (Warehouse Stock #08073000) should be attached to the trailer door handle assembly.

6.2 Placarding

Semitrailers loaded with more than 500 kgs. of dangerous commodities, as defined by the Transportation of Dangerous Goods Code, must be placarded prior to loading the semi-trailer.

For shipments that contain two or more different classes of dangerous goods, whose total weight exceeds 500 kgs., must be placarded the the "DANGEROUS" placard.

APPENDIX "A"

PH-GL-418

INSPECTION GUIDELINE FOR SEMITRAILER UNITS

FLOORS AND SIDEWALLS

(1) Should be clean, free of debris, oil, grease, or contaminating odors.

(2) Must not have projecting nails, screws, staples, etc. Fasteners should be countersunk.

(3) Must not have torn or sharp projections.

(4) Must not have holes open to the elements.

(5) Holes in trailer lining must be adequately repaired to prevent damage to lading.

DOORS

(1) Must be tight fitting, with all hinges and door closure pieces in good working condition. Interior fastenings must not protrude inside of trailer.

(2) Door linings must be in good condition, having no sharp projections on the inside of door.

ROOF

(1) Must be free of holes or openings that could cause water or foreign material leakage.

CANVAS TOP

(1) Must be free of holes or openings, rips, tears, etc., that could cause water or foreign material leakage.

(2) Normally, to be used for containers that are unaffected by moisture (steel or rubber containers). Should not be used for bags, boxes, fiberpaks, etc., unless special handling requirements are requested.

ANNUALLY, THE TWO MAJOR CANADIAN RAILROADS TRANSPORT APPROXIMATELY 223,000 LOADS OF DANGEROUS GOODS OVER A RAIL NETWORK COMPRISED OF 38,000 MILES OF TRACKAGE. A COMMITMENT FROM EACH EMPLOYEE IS A MUST TO ENSURE THE SAFE TRANSPORT OF THESES GOODS. SUCH A COMMITMENT IS REFLECTED FOR EXAMPLE IN THIS RAILWAY MANAGEMENT GUIDE FOR POLICY AND AUTHORITY ON SAFETY, WHICH READS IN PART:

POLICY

IT IS CORPORATE POLICY TO TAKE ALL REASONABLE MEASURES TO PROTECT PASSENGERS, EMPLOYEES AND THE PUBLIC AT LARGE FROM ACCIDENT OR MISADVENTURE WHILE IN RAILWAY EQUIPMENT OR ON RAILWAY RIGHT-OF-WAY OR OTHER CORPORATE PROPERTY. IN NO CASE WILL SUCH MEASURES BE LESS THAN THE OBLIGATIONS IMPOSED UPON THE CORPORATION BY LAW.

TO THIS END IT IS CORPORATE POLICY TO ENGAGE IN CONTINUING PROGRAM TO PROMOTE ACCIDENT PREVENTION THROUGH THE EDUCATION OF EMPLOYEES IN THE IMPORTANCE OF SAFE WORK HABITS, THE PRESCRIPTION OF WORKING AND OPERATING RULES DESIGNATED TO ENSURE SAFE WORKING AND OPERATING PRACTICES, AND THE ELIMINATION OF HAZARDOUS CONDITIONS.

FURTHER, IT IS CORPORATE POLICY TO COMPLY PROMPTLY WITH THE REGULATIONS AND DIRECTIVES OF GOVERNMENTAL OR SIMILAR BODIES HAVING JURISDICTION OVER THE CORPORATION OR ANY PART THEREOF IN MATTERS OF PUBLIC AND EMPLOYEE SAFETY AND CO-OPERATE WITH ORGANIZATIONS AND ASSOCIATIONS DEVOTED TO SAFETY RESEARCH AND EDUCATION.

THE POLICY IS FURTHER RE-ENFORCED AT THE OPERATING LEVEL AS THE FOLLOWING GENERAL NOTICE APPEARS IN THE UNIFORM CODE OF OPERATING RULES FOR RAILWAY EMPLOYEES:

GENERAL NOTICE

SAFETY IS OF THE FIRST IMPORTANCE IN THE DISCHARGE OF DUTY.

OBEDIENCE TO THE RULES IS ESSENTIAL TO SAFETY.

TO ENTER AND REMAIN IN THE SERVICE IS AN ASSURANCE OF WILLINGNESS TO OBEY THE RULES.

THE SERVICE DEMANDS THE FAITHFUL, INTELLIGENT AND COURTEOUS DISCHARGE OF DUTY.

THE APPLICATION OF RAIL POLICY IS EVIDENT THROUGH VARIOUS RAILWAY INITIATIVES THAT INCLUDE:

TRAINING

THE RAILROADS HAVE DEVELOPED AND IMPLEMENTED EXTENSIVE TRAINING PROGRAMS COMMENCING IN CERTAIN INSTANCES, THE DAY THE EMPLOYEE JOINED THE COMPANY.

AS FOR DANGEROUS GOODS TRAINING, THE TWO MAJOR RAILROADS HAVE TRAINED OVER 37,000 EMPLOYEES AT AN APPROXIMATE COST OF 3 MILLION DOLLARS TO MEET THE INITIAL REQUIREMENTS OF THE DANGEROUS GOODS REGULATIONS.

TRAIN AND YARD CREWS ARE GIVEN INSTRUCTION WITH RESPECT TO THE PROPER TRAIN HANDLING AND SWITCHING REQUIREMENTS RELATIVE TO TRANSPORTATION OF DANGEROUS GOODS BY RAIL.

CARLOAD SERVICE CENTER STAFF ARE TRAINED TO ACCEPT AND PREPARE DOCUMENTATION THAT IS NECESSARY TO ACCOMPANY THE DANGEROUS GOODS SHIPMENTS.

EQUIPMENT PERSONNEL ARE TRAINED TO INSPECT CAR EQUIPMENT AND TO PROVIDE VARIOUS LEVELS OF EMERGENCY RESPONSE.

CAR INSPECTIONS

REGULATIONS WITH RESPECT TO CAR INSPECTIONS ARE DESCRIBED IN THE CANADIAN TRANSPORT COMMISSIONS REGULATIONS. ESSENTIALLY, RAIL CARS FOR DANGEROUS GOODS ARE INSPECTED BEFORE LOADING, AFTER LOADING AND DURING TRANSPORT.

THE INSPECTIONS ARE CARRIED OUT BY CERTIFIED CAR INSPECTORS, TRAIN CREWS, TRACK SIDE HOT JOURNAL AND DRAGGING EQUIPMENT DETECTORS.

THE HOT JOURNAL AND DRAGGING EQUIPMENT DETECTORS ARE STRATEGICALLY PLACED ALONG RAIL LINES. CARS WITH OVERHEATED JOURNALS ARE IDENTIFIED AND THEIR LOCATION COMMUNICATED TO THE RESPECTIVE TRAIN CREW IN ORDER THAT THE CAR MAY BE PHYSICALLY INSPECTED AND IF NECESSARY REMOVED FROM THE TRAIN FOR REPAIRS.

CN AND CP RAIL HAVE A TOTAL OF 606 HOT JOURNAL DETECTORS IN PLACE THROUGHOUT THE RAILWAY NETWORK.

TRACK PROGRAMS

A SAFE OPERATION BEGINS WITH GOOD TRACK. ANNUALLY, CN AND CP SPEND IN EXCESS OF 400 MILLION DOLLARS FOR RAIL, TIES AND BALLAST.

THERE HAVE BEEN MANY CHANGES OVER THE LAST 10 TO 15 YEARS TO BOTH TRACK STRUCTURE AND INSPECTION AND MAINTENANCE PROCEDURES. SIGNIFICANT IMPROVEMENTS IN TRACK PERFORMANCE AND PRODUCTIVITY HAVE RESULTED FROM CHANGES SUCH AS THE INTRODUCTION OF HEAVIER TRACK STRUCTURE, DEVELOPMENT OF TECHNOLOGICALLY ADVANCED MAINTENANCE EQUIPMENT AND UTILIZATION OF COMPUTER ASSISTED MANAGEMENT PROGRAMS.

A NEW GENERATION OF SPECIALIZED VEHICLES SUCH AS THE TRACK GEOMETRY CAR, ULTRASONIC RAIL TEST CARS AND SMALLER TOOLS SUCH AS THE ELECTRONIC AUDIO GAUGE WERE DEVELOPED AND ARE NOW USED EXTENSIVELY FOR TRACK QUALITY INSPECTION.

TO SUPPLEMENT INSPECTIONS, CN HAS DEVELOPED THE SECOND GENERATION TRACK GEOMETRY CAR, "TRACK EVALUATION SYSTEM" OR T.E.ST. FURTHER ADVANCED THAN ITS PREDECESSORS, T.E.ST. MEASURES AND RECORDS ACTUAL TRACK CONDITIONS AS THEY APPEAR UNDER DYNAMIC LOADING, USING THE LATEST AVAILABLE MEASUREMENT INSTRUMENTATION, COMPUTER ANALYSIS AND DATA REPORTING EQUIPMENT.

MAINTENANCE REQUIREMENTS IDENTIFIED BY THESE INSPECTIONS ARE PERFORMED BY WELL EQUIPPED MOBILE PROJECT GANGS.

COMPUTER SYSTEMS

TO ASSIST IN MONITORING THE APPLICATION OF THE DANGEROUS GOODS REGULATIONS AND TO PROVIDE INFORMATION AS TO THE DANGEROUS GOODS BEING TRANSPORTED, THE RAILWAYS HAVE DEVELOPED AND IMPLEMENTED SOPHISTICATED COMPUTER SOFTWARE PACKAGES THAT INCLUDE:

A MONITORING PROGRAM TO ENSURE DANGEROUS GOODS CARS ARE PLACED ON TRAINS IN COMPLIANCE WITH MARSHALLING REGULATIONS.

A DOCUMENT RETRIEVAL PROGRAM THAT PROVIDES THE MEANS TO OBTAIN A COPY OF THE SHIPPING INFORMATION SHOULD THE ORIGINAL SHIPPERS DOCUMENT BECOME LOST EN-ROUTE.

AN EMERGENCY RESPONSE INFORMATION SYSTEM THAT ALLOWS FOR EMERGENCY RESPONSE DATA TO BE ACQUIRED THROUGH THE RAILROADS COMPUTER SYSTEM FOR DANGEROUS GOODS BEING TRANSPORTED ON A TRAIN OR FOR CARS STATIONARY IN A RAIL YARD.

EMERGENCY RESPONSE PERSONNEL AND EQUIPMENT

CN AND CP HAVE RESPONSE PERSONNEL AVAILABLE AT 52 LOCATIONS ACROSS CANADA THAT MAY BE CALLED UPON TO ASSIST IN THE EVENT OF A RAIL EMERGENCY INVOLVING DANGEROUS GOODS.

EMERGENCY RESPONSE EQUIPMENT THAT INCLUDE: 24 AUXILIARIES, 26 HI-RAIL CRANES, 16 WRECK DOZERS AND 24 HYDRAULIC RERAILERS ARE STRATEGICALLY LOCATED THROUGHOUT CANADA TO MAXIMIZE RESPONSE EFFORTS.

IN ADDITION TO EQUIPMENT FOR CLEARING DERAILMENTS, THE TWO RAILWAYS HAVE 29 EMERGENCY RESPONSE UNITS RANGING FROM 45FT TRAILERS DESIGNED AND EQUIPPED WITH COMMUNICATION EQUIPMENT TO SERVE AS MOBILE COMMAND POSTS TO THE SMALLER SELF-PROPELLED EMERGENCY RESPONSE VEHICLES THAT CONTAIN SUPPORT SUPPLIES AND MATERIALS USED BY THE RAILROAD EMERGENCY RESPONSE PERSONNEL AT THE SCENE.

EMERGENCY RESPONSE PROCEDURES

APPENDED, ARE TWO DOCUMENTS THAT DESCRIBE THE EMERGENCY RESPONSE PROCEDURES OF CP AND CN RAIL.

APPENDIX D-1

EMERGENCY RESPONSE INFORMATION PACKAGE

1. PRODUCT INFORMATION

(a) Physical Properties and Health Effects
- Physical properties
  (gas, liquid, corrosive, oxidizer, etc.)
- Hazards for health effects
  (for skin, eyes, lungs, etc.)
- Personal protection
  (faceshield, goggles, gloves, acid suits, SCBA, etc.)
- Evacuation limits
  (tables, diagrams, maps, overlays, etc.)
- First aid and written medical protocol
  (approved by corporate physician and containing procedures for treatment, special antidote, etc.)

(b) Shipping Containers and Regulations:
(Listing, diagrams, capping kits, fitting description, etc.).
Need for TDG training certificate.

(c) Containment of spill and transfer procedures
- Equipment (absorbent, pump, hoses, etc.)
- Procedures with diagrams

(d) Materials of construction
- Recommended materials (long term, short term)
- Materials to avoid

(e) Neutralization/decontamination procedures
- Chemicals
- Suppliers
- Recommended practices (dilution, cleaning, mixing, etc.)
- Clean-up contractors

(f) Waste Disposal
- How to dispose of spilled/contaminated/neutralized product.
- Transportation contractors list.
- Waste disposal sites.

(g) Suggested sources

- Company sources
  - material safety data sheets
  - product bulletins
  - technical manuals
  - chemical 'backgrounders' for media

- General References:
  - Bureau of Explosives, AAR
    "Emergency Handling of Hazardous Materials in Surface Transportation"
  - Canutec
    "Emergency Response Guide for Dangerous Goods", 3rd Edition
  - D. O. T.
    "Hazardous Materials Emergency Response Guidebook
  - Environment Canada, EPS
    "Enviro Technical Information for Problem Spills" (ENVIRO TIPS) (a series of individual handbooks covering most common chemicals)
  - Environment Canada, EPS
    "Manual for Spills of Hazardous Materials"
  - Shipping documents, labels, ER forms, etc. for all company hazardous materials.

2. PHONE LISTS

(a) Agencies:

TEAP RRC's, TEAP members, Canutec, Chemtrec, drum network, other mutual aid associations, poison control centres, etc.)

(b) In-Company numbers:

ER organization numbers, company management, company locations, (plants, warehouses, depots, etc.) information sources (lab), functional resources (medical, environmental, logistics, etc.)

(c) Suppliers of neutralizing chemicals

(d) Carriers - truckers, rail, etc.

(e) Clean-up contractors

(f) Civil Authorities:

- Environmental agencies
- Police and Fire
- EMO
- Coast Guard
- CTC
- Bureau of Explosives
- etc.

(g) Check list of required/recommended calls
Check legal reporting requirements

3. TRAVEL INFORMATION

- Maps, road atlas
- Flight schedules
- Available charter aircraft (prices, contract, insurance coverage, etc.)
- Car rental
- etc.

APPENDIX D-2

EMERGENCY RESPONSE EQUIPMENT

A. Technical Advisor

- Personal protective clothing
- Specialized equipment for sealing or transfer specific to product, if not on TEAP
- list information package
- Record taking equipment:
  - notebook
  - tape recorder
  - camera
- Personal travel kit - personal care, spare clothing, medicines, etc.

B. Response Team

Depending on type of chemicals, containers, area, the following type of equipment may be needed:

1. Personal protection, safety and health
   - first line of defence so assume worst
   - provide some lower level protection as well, easier to wear
   - train, retrain, practice - must fit

2. Personal care and spare clothing

3. Communications, information and recording

4. Analytical - portable, rugged
   e.g. Draeger; pH and other papers; combustible gas/toxic gas/0_2 deficiency analysers; organic vapour analyser

5. Hand tools
   May be available from other sources, e.g. railways, fire departments, but must be sure.

6. Sealing, containment, clean-up

7. Transfer equipment

8. Vehicle

As team replaces TEAP, complete set of equipment may be required.

APPENDIX D-3

EMERGENCY RESPONSE TRAINING

A PARTIAL LIST OF COURSES FOR 1988

1. **Lambton College**
   P. 0. Box 969, Sarnia, Ontario
   N7T 7K4
   (519) 542-7751

   (a) "Emergency Response Course" (Hands On) - 4 days
   Dates: April, 1988
   (Not available during the winter months)
   Cost: $700 Cdn.

   (b) "Disciplined Approach to E.R."
   1 day to be run the day before "Hands On" Course
   Cost: $200 Cdn.

2. **Delaware State Fire School**
   Rd. 2, Box 166, Dover, Delaware 19901
   (302) 736-4773

   "Hazardous Materials Emergency Response Course"
   The three day course will be offered on the following dates through 1988:
   February 23, 24, 25
   April 12, 13, 14
   Cost: $450 U.S.

3. **Texas A&M University System**
   Texas Engineering Extension Service
   College Station, Texas 77843-8000
   (409) 845-3418

   "Hazard Material Control"
   Five day course
   Cost: $700 U.S.

4. **Safety Systems Inc.**
and St. Augustine Technical Centre
P. 0. Box 40276
Jacksonville, Florida 32203 U.S.A.
(904) 963-3100

"Hazardous Materials Leak, Spill and Fire Control School and Expo"
"Tactical Considerations" Four day course.
Part 1 - February 15 - 19
Part 2 - June 20 - 24

"Command Considerations"

Cost: $250 U.S.

5. **Transportation Test Centre**
Association of American Railroads
P. 0. Box 11130
Pueblo, Colorado 81001
(303) 584-0501 Ext. 371

"Hazmat Spill Control Training Course"
February 1 - 5, 1988
February 22 - 26, 1988
March 7 - 11, 1988
June 27 - July 1, 1988
September 12 - 16, 1988 *Cost: $795 U.S.*

"Tank Car Safety Course"
Five day course to run on the following dates through 1988:
February 8 - 12
February 29 - March 4
March 21 - 25
April 11 - 15
April 25 - 29 *Cost: $925 U.S.*

6. **National Spill Control School**
Corpus Christi State University, 6300 Ocean Drive
Corpus Christi, Texas 78412
(512) 991-8692

"Hazardous Materials/Hazardous Wastes Spill Prevention and Control"
Four and a half day course to run on:
March 14 - 18 *Cost: $725 U.S.*

"Oil Spill Prevention and Control"
Four and a half days, course to run on:
March 7 - 11 *Cost: $725 U.S.*

"OSHA/RCRA Hazardous Waste Safety Training"
March 21 - 25 *Cost: $725 U.S.*

7. **Office of Training Services**
J. T. Baker Chemical Co., Phillipsburg, N.J. 08865
(201) 859-2151

"The Hazardous Chemical Spill Response Workshop"
April 11 - 12 - Toronto
April 14 - 15 - Ottawa
May 18 - 19 - Vancouver *Cost: $595 U.S.*

8. **Chemical Manufacturers Association**
2501 M Street, N.W., Washington, D.C. 20037
(202) 887-1255

"Chemtrec Emergency Response Team Workshop"
Dates and cost not available at time of printing.

Note: *It is strongly suggested that Emergency Responders be trained in fire fighting techniques. Courses are presented by Lambton College, Delaware Fire School, Texas A&M, Safety Systems among others, at addresses listed above.*

CANADIAN PACIFIC

EMERGENCY RESPONSE PROCEDURES

EMERGE RESPONSE PROCEDURES

Should an accident involving dangerous commodities occur, a carefully planned emergency response procedure immediately goes into effect. The responsibilities of railway employees are outlined in an

which is distributed across the CP Rail system. The various aspects of the response are described below.

NOTIFICATION

Train crews, in the event of an accident, contact the train dispatcher, who in turn notifies a list of individuals and organizations equipped to deal with incidents involving dangerous commodities. Included in the list are the local railway superintendent, the railway's emergency response team, the local fire and police departments, the Canadian Transport Commission and the Bureau of Explosives (of the Association of American Railroads).

CP Rail

DOCUMENTATION

For every train that moves on the CP Rail system, there is a train consist -prepared, which lists in detail what the train is carrying. A copy of the train consist is kept on each end of the train itself, and is also available from CP Rail's computer at any point across the system. Train consists have been improved and expanded, with special attention given to dangerous commodities. Detailed information includes:

** the full and proper shipping name of the commodity;
** the placard notation (type of placard applied to car);
** the '49' series Standard Transportation Commodity Code (STCC) number;
** the UN identifcation number;
** the location of the cars containing dangerous commodities on the train.

The train consist thus enables the crew to immediately identify the location and contents of all cars on their train.

Every car on a CP Rail train is accompanied by a waybill , which is in the possession of a member of the train crew.

For every full carload, trailerload or containerload of dangerous commodities, an emergency response form must be prepared by the shipper and must accompany the load from origin to destination. This form is approved by the Canadian Transport Commission. It contains instructions on immediate action to be taken in the event of an emergency, information on the special hazards of the commodity involved, the shipper's name and emergency telephone number.

Emergency response information is also contained in the manual entitled "Dangerous Goods Guide to Initial Emergency Response Prepared by Transport Canada". Copies of this manual have been distributed to all running trade employees, dispatchers and operating officers.

In addition, emergency response information is available from any computer terminal across the CP Rail system.

CP Rail has installed special telephone for incoming emergency calls only, in all of its dispatching offices. The telephone numbers have been distributed to the appropriate response forces across Canada.

PERSONNEL AND EQUIPMENT

CP Rail has established twelve emergency response teams across Canada at Saint John, Montreal, Toronto, Windsor, Sudbury, Thunder Bay, Winnipeg, Moose Jaw, Calgary, Edmonton, Cranbrook and Vancouver.

Each team is equipped with an Emergency Response Vehicle (ERV), capable of travelling on both highway and rail, designed to detect hazardous emissions from rail cars, and to serve as a command post, first-aid and communications centre at the scene of an incident involving dangerous commodities.

These specially trained emergency response teams, on call twenty-four hours a day, seven days a week, are equipped with protective clothing, self-contained breathing apparatus, detection and monitoring equipment, first-aid and communications equipment.

In addition, CP Rail has five regional dangerous commodities officers, who respond to derailments or other incidents involving dangerous commodities. Each officer has a fully equipped four wheel drive vehicle, and has received intensive training.

Action Taken by The Conductor

First at the scene of any derailment is the crew. The conductor notifies the train dispatcher or regional operations control centre of the incident and arranges for protection of the train in accordance with the Uniform Code of Operating Rules. He determines if dangerous commodities are on the train from the documentation in the caboose. He warns other employees and the public of potential hazards and keeps them away from the incident scene to the best of his capabilities. If safe to do so, he will identify commodities directly involved and their location.

If the engine is not directly involved in the incident and if it is safe to do so, the train will be cut as close as possible to the derailed cars and moved to a safe distance. The documentation (Shipping document, ER forms, waybills and train journal) will remain at the scene with the senior railway official and be readily available to emergency forces.

Action Taken by Train Dispatching Centre

Regional Operations Control Centre

Once the dispatching or control centre has received details of the incident from the crew, these offices are responsible to provide protection from other trains at the scene as required by the Uniform Code of Operating Rules. Fire, police and medical assistance, if required are arranged immediately. Communication lines are kept open with the conductor at the scene. If necessary, auxiliary equipment is dispatched to the scene and railway emergency response teams are alerted to proceed to the incident site. Railway division officers are notified as are civil authorities if required.

Emergency Response Teams

Railway personnel are not trained or specifically equipped to handle chemical spills or fight fires but they do have specialized teams of trained personnel equipped to respond to derailments involving spills and other dangerous situations. Each of the teams is able to confirm and identify chemical hazards and their extent, carry out minor repairs and assist in other aspects of emergency work.

train journals and switch lists, or by checking with the dispatcher or yard supervisor.

- Arrange to have cars not involved in the incident removed to a safe distance from the accident site.
- Give the dispatcher or yard supervisor details on the cars carrying dangerous goods involved in the incident or nearby -- car numbers, contents, emergency response telephone numbers, condition of each car. This applies to empty tank cars as well because of the danger posed by any residue they might contain.
- Make no attempt to have the accident site cleared until the area has been declared safe.
- Co-operate with civil authorities by providing documentation (waybills, emergency response forms) and other factual information to representatives charged with making decisions on matters relating to employee or public safety.

The train dispatcher or yard supervisor, once notified of the incident, performs an advisory and communications function during the period immediately following the event. This officer must:

- Ensure that the conductor has carried out the tasks necessary to protect employees and the public.
- Alert local fire protection and police authorities, as well as medical personnel if necessary.
- Contact the CN Rail Regional Operations Control Centre and

division officers in the transportation, engineering and equipment functions.

- Advise the CTC Railway Transport Committee.
- Order clean-up equipment if required.

Then, following notification by the train dispatcher or yard supervisor, the Regional Operations Control Centre becomes the focal point for co-ordinating response to the incident. The regional operations control officer specifically acts as co-ordinator, to:

- Review the situation with the train dispatcher or yard supervisor and establish the extent of the incident, what measures have already been taken and what remains to be done.
- Notify regional officers on a "need to know" basis, including representatives of the transportation, equipment, engineering and public affairs departments.
- Prepare a report on the incident as well as follow-up progress reports.
- Arrange prompt notification of government agencies such as the Railway Transport Committee, the Emergency Measures Organization, Labour Canada.
- Contact shippers, manufacturers and consignees for technical information and assistance as required.
- Determine what additional equipment is required and co-ordinate its movement to the scene.

- Consider implications for other traffic, including rail passenger operations, and the need for detour arrangements, and notify the appropriate operating regions of CN Rail and other railways if necessary.
- Ensure that all documentation -- forms, reports, instructions, recorded conversations -- is properly preserved as a permanent record.
- Maintain a close liaison with the senior transportation officer who is co-ordinating operations at the scene and provide any needed assistance.

The senior operations officer, dispatched to the scene as quickly as possible, takes on responsibility for overall co-ordination of activities at the site. A red vest, with the words "commander" or "duty officer" displayed, identifies this officer as the on-site authority. As co-ordinator, the officer:

- Ensures that a command post is established as quickly as possible.
- Initiates a log book, to be maintained by command post personnel.
- Verifies that appropriate action has been taken by the train crew with regard to protection of people and materials and ensures that contacts are established with community officials and the media.
- Investigates the situation to establish possible causes of the accident and communicates pertinent information to

regional operating authorities.

- Develops a plan for restoration of normal service as quickly as possible and supplies information on the traffic involved so that customers may be notified.

Emergency Response Personnel

CN Rail's special emergency response teams are made up of officers from the transportation and equipment departments dedicated to the handling of dangerous commodities.

Transportation department officers are primarily responsible for liaison with regulatory authorities, while equipment department officers are directly involved in responding to rail emergencies.

CN Rail has also designated personnel at 40 locations across Canada to respond to emergency situations within their territories. Whenever an incident involving dangerous commodities occurs, these employees proceed directly to the site. Based on information received, they review the situation en route -- the nature of the commodities involved and proper handling techniques.

At the site, they determine the degree of hazard and recommend measures, including evacuation, to contain any danger.

Throughout the danger period, they monitor the site until it has been declared safe.