Railway Emergency Response
Dangerous Goods Team

Who we are

22,250 employees

20,000 route miles

5.2 million carloads

Includes diverse products such as grains and fertilizers, petroleum and chemicals, automotive and forest products, metals, minerals and consumer goods
DG Team Responsibilities

Emergency Response

Regulatory Compliance

Community Outreach & Training

Corporate Support
DG System Map
Dangerous Goods Officer (DGO)

HAZMAT Specialist – 13 DGOs with rapid deployment capability strategically stationed across the network

14 DGRs trained to handle incidents at key locations

HAZMAT Technicians / Industrial Fire Fighters / Air Monitoring

Various areas of specialization
# Emergency Response

## Preparedness & Process

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Emergency Response Preparedness

**Equipment**
- Fire Trailers
- Transfer Trailers
- DGO Personal Equipment (all above requiring regular inspection)

**Hazards Analysis**
- Gap Analysis
- Dangerous Goods Transported
- Response Times Across the Network

**Auditing Contractors / Resources**
- Properly Trained Personnel
- Appropriate Equipment for Response
- Continuous Maintenance of Lists of Qualified Contractors

**Emergency Response Asset Management**
- Dangerous Goods Responders
- Shipper Resources
- Industry Experts

**Maintaining Specialized Training**
- Tank Car Specialist, Chemistry, Incident Command
- Industrial Firefighting (Flammable Liquid Technique)
- Explosives, Industrial Hygiene
Emergency Response Process

- System Protection
- Rapid Deployment
- Site Safety and Assessment
- Assemble and Assist in Executing Tactical Plan
- Work in Cooperation with Emergency Responders
Rapid Deployment Model

→ Immediate response

→ Notification of all required stakeholders

→ Activation of emergency response resources:

> ER Contractors
> Industrial Firefighters
> Air Monitoring
> Fire trailers / foam caches
> Transfer / Specialty Equipment
> Industrial Partners
Site Safety & Assessment

- Immediate Safety on Site
- Protective Action Distances
- Air Monitoring
- PPE
Assembling & Executing The Tactical Plan

The DG Team will provide a tactical plan to address:

- Chemical Hazards Present
- Container Damage Assessment
- Container Repairs
- Wrecking Plans for DG Containers
- Product Transfers
First Responders: Arriving on Scene

Railroad accidents present a unique challenge, therefore it is crucial that responders follow the necessary steps if confronted with such an incident.

**Notify the Railroad**
- Identify yourself and the agency you are representing

**Confirm your Location**
- Identifiers can be found on mile posts along the tracks, on crossbucks, signal masts, lights, signal bungalows and relay houses

**Locate the Train Crew**
- Train crew will have the most up-to-date list of the train’s consist on the scene
  - If crew is unavailable, other means to retrieve consist:
    - Railroad’s traffic control center (via RR emergency telephone number)
    - Responding railroad officers
    - Askrail app
**DANGEROUS GOODS SHIPPING DOCUMENT**

**TO:** DUCK LAKE MS  
**FROM:** APPA AB CRUDE OIL SUPPLY CO

**1 TANK CAR / 82789 KG**

**UN1267**

**PETROLEUM CRUDE OIL**

**CLASS 3//PG II**

**Emergency Response Phone Number**  
USA (800) 424-9300  
CCN 1234  
EMERGENCY 24-HOUR NUMBER CDN (613) 996-6666  
2-A-1234  
ERP 2-1933-078 TEL (800) 265-0212  
HAZMAT STCC 4910165

**Shipper Certification**

**SHIPPERS CERTIFICATION: BOB SMITH**

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.
First Responders: Arriving on Scene

Secure the Area
- The incident may span a large distance – securing the area may require a large number of personnel

Establish the Proper Hazard Zones
- Consult the North America Emergency Response Guidebook (ERG) to establish an isolation zone if necessary

Begin Site Assessment
- This must always be done from a safe distance, upwind and uphill

Establish Incident Command
- Helps to coordinate resources, achieve response objectives, and to ensure a safe, secure response

Determine Available Resources
- May mean equipment, can also include the railroad and its responders, and other functions such as Mechanical, Transportation and Engineering
- CANUTEC / CHEMTREC and chemical shipper and manufacturers can also offer assistance

Use all of the resources available to you to ensure a safe and efficient resolution to the response
If dangerous goods / hazardous materials are involved in the incident, only trained and properly equipped responders should approach.

When conducting an assessment of an incident site, always keep the following in mind:

- Your own safety
- Your capabilities
- Your resources

Remember: **DO NOT RUSH IN** – be sure to build a clear picture of the incident from outside the hot zone.
NIMS Incident Command System (ICS) Model

Incident Command System

- Incident Commander
  - Safety Officer
  - Public Information Officer
  - Operations
  - Planning
  - Logistics
  - Finance

Railroad Incident Command

- Senior Transportation Officer
  - Transportation
  - Engineering
  - Mechanical
  - Safety
Unified Command

Municipal Fire Chief

- Planning
- Logistics
- Operations
- Finance

- Railroad Branch
  - Transportation
  - Engineering
  - Mechanical
  - Safety
- Fire Branch
  - Rescue
  - Fire

CN General Manager

Public Information Officer
CN Equipment

- Strategically-placed emergency response assets:
  - Firefighting foam trailers
  - Commodity transfer trailers
  - Boom and spill containers

CN Personnel

- Can serve as a crucial resource during an incident. Some of the internal resources that may be present on site:
  - Dangerous Goods Officers
  - Transportation, Mechanical Engineering Depts
  - Environment
  - Railroad Police Officers
  - Risk Management and Mitigation
  - Public Relations Officer
**Contractor Personnel & Equipment**

CN employs a network of contractors who bring personnel and equipment to the response:

- Re-railing and wrecking contractors with heavy equipment
- Emergency response contractors with vacuum and pumping equipment
- Environmental response contractors provide on-site remediation of contaminated water soil, etc
- Industrial hygiene contractors providing on-site air monitoring

**Plume dispersion modeling**

In the event of an incident, CN employs a specialized software designed to assess the impact of a release of dangerous goods on the surrounding area.
Basic Site Safety

Before approaching any rail equipment, confirm that the area and equipment are secured and protected by railroad personnel

- Park or position equipment at least 25 feet from the nearest rail – locomotives and rail cars are wider than the rails

Expect a train or rail equipment on any track, in either direction, at any time.

- Never step on the rail, step over the rail
- Never stand or walk between the rails
- If crossing tracks, stay at least 25 feet from the ends of any rail equipment
- If climbing rail equipment, use three points of contact at all times.
- Always tie off and secure any ladders used
- Do not jump off any equipment
- Ensure you are wearing appropriate PPE
The accident site can present additional hazards to the responder, even if no hazardous materials are involved.

- The wreckage may be unstable
- Bent and stressed rail
- Be aware of downed power lines and damaged underground gas pipelines
- Be aware of the presence of heavy equipment
CN Emergency Response Plan

- Reviewed every 3 years
- Incorporates input from all stakeholders
- Revisions managed by Dangerous Goods Team
Community Outreach & Training

Engage the community in awareness, train first responders and assist planning groups to prepare for an incident

DG Team trains an average of 4,300 first responders across the network every year
First Responder Training

2-3 hr classroom session on railway & derailment safety, shipping documents, tank cars and incident response

Hands on training using the CN training trailer equipped with valves and fittings from various tank cars

Railroad Emergency Response, half-day class for fire service officers who may serve in a command role at a derailment
First Responder Training

CN 911 training tank car to teach valves, fittings, how railcars work and participation in a functional drill
First Responder Training

Fire Department – Intensive Training

• 40-hour CN-sponsored tank car specialist course at SERTC (AAR’s hazmat school in Pueblo, CO)
• 24-hour CN-sponsored crude by rail course at SERTC (flammable liquid firefighting in derailment scenarios)
• Contractor Training at SERTC

CN pays tuition, hotel and meals for these courses, Fire Dept pays for travel
First Responder Training

- Product-specific training with industry partners
- ERAC Training
- RAC Week
- Web-based Crude By Rail Training

Since 1988, CN has trained more than 100,000 first responders across its North American network