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Transportation of Dangerous Goods

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INSIDE

ERAP ACTIVATION – A CASE STUDY

By Paul Driver

Emergency Response Assistance Plans (ERAP) are detailed plans companies prepare before offering certain higher risk dangerous goods for transport in Canada, as defined by the *Transportation of Dangerous Goods Act, 1992* and Regulations. These plans must:

- Include detailed information about how the company will assist local First Responders at incidents that involve these dangerous goods. These resources can be:
  - Specialized equipment during a response;
  - Technical advisors and product experts; and/or
  - Trained response teams with proper equipment, training and expertise to provide hands-on assistance to First Responders at the scene of a rail or road based incident.
- Describe how a company will be able to deploy these resources when an incident occurs.

Companies with ERAPs will often have agreements with emergency response contracting companies to provide assistance in different parts of the country, while others may have their own equipment and personnel located in different regions to provide response. While each company can develop an ERAP best suited to its needs and response capacity, Transport Canada (TC) must review and approve a plan **before** the company can ship products covered by the plan.

Canada

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Subscriptions are free of charge and available to anyone on request by visiting the TDG website at: www.tc.gc.ca/eng/tdg/newsletter-menu-268.htm

This newsletter is also available at the same internet address. Please address comments and inquiries regarding additional information or publications to:

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Scenario

On the morning of January 2, 2015, a train traveling west derailed near Small Town, Saskatchewan, just south of highway 5. Initial reports indicated there were no injuries, but thick black smoke was seen coming from the scene.

Personnel from the rail company, local fire department and local Royal Canadian Mounted Police (RCMP) were dispatched to the site of the derailment, who then set an initial safety perimeter of about 1.6 km (1 mile). The Canadian Transport Emergency Centre (CANUTEC) was also notified of the incident.

Their initial assessment determined that:

- 26 rail cars had derailed, six of which were tank cars carrying dangerous goods:
  - Two contained Hydrochloric Acid (UN1789);
  - Two contained Petroleum Distillates, N.O.S (UN1268); and
  - Two contained Sodium Hydroxide Solution (UN1824).
- The tank cars containing the Petroleum Distillates product were on fire.

Soon after this initial assessment, First Responders increased the safety perimeter to 3.2 km (2 miles) due to increased wind speed.

To assist local First Responders, the product owners deployed personnel from the emergency response organization identified in their approved plan. TC sent a Transportation of Dangerous Goods (TDG) Inspector as well as a Remedial Measures Specialist (RMS) trained in emergency response to provide advice and monitor the response to the incident.

As required by the *Transportation of Dangerous Goods Regulations*, the products (Hydrochloric Acid (UN1789) and Petroleum Distillates, N.O.S (UN1268)) had ERAPs registered with TC. These plans were activated as part of the response. This made technical advice available to First Responders for both products and teams specialized in providing emergency response for these products were sent to the derailment site.

As there were no affected buildings or people immediately around the burning tank cars, experts chose to allow the fire to burn itself out without risking the safety of firefighters or the public. Though not directly threatened by the fire, 10 homes were evacuated within the 3.2 km perimeter, which temporarily displaced about 50 people.

Once the fires were extinguished, highly trained emergency response contractors:

1. Cleaned and removed the two burnt out petroleum tank cars from the derailment site.
2. Transferred the Hydrochloric Acid (UN1789) from two other tank cars into highway tankers brought in for this purpose, then cleaned the damaged tank cars in place using steam, and removed them from the derailment site.
3. Transferred the Sodium Hydroxide Solution (UN1824), a material that does not require an ERAP by regulation, to approved containers before cleaning and removing the two last damaged tanks from the site.

The derailment scenario in Small Town, Saskatchewan, is a good example of how activating ERAP plans help First Responders deal with an unforeseen event with a successful outcome of minimal damage to property and no injury or loss of life.

WORD FROM THE DIRECTOR GENERAL

By Nicole Girard

This issue marks a big difference in how the Transportation of Dangerous Goods (TDG) Directorate presents the TDG Newsletter. In the past, we encouraged TDG staff to write articles they believed would interest a broad range of readers. These articles were often based on recent events such as training or table-top exercises, actual responses to TDG incidents, regulatory updates and statistics on reportable incidents.

From this issue forward, the TDG Newsletter will take a thematic approach, devoting each issue to a single aspect of the program. We are launching this new approach on the theme of Emergency Response Assistance Plans (ERAP).

The industries, and contractors who respond to TDG incidents on their behalf, understand and appreciate the ERAP program well. That being said, many others who can benefit from the program are not aware of it, or should know more about why it exists and how it can help them. These audiences include municipalities, within whose boundaries an incident would occur, and First Responders, who often want or need additional response resources.

To address this gap, the TDG Directorate will conduct a significant safety awareness campaign and produce a number of 'products' for distribution to municipalities, First Responders and industry. These products will inform each group on the resources and capabilities available to support them in case of an incident involving dangerous goods subject to an ERAP.

We believe raising awareness about the ERAP program, the Emergency Response Guide (ERG), the Canadian Transport Emergency Centre (CANUTEC) call-centre, and the regional TDG Remedial Measures Specialists (RMS) will help First Responders access the many valuable resources available to support them.

As part of the TDG Safety Awareness program, we will attend a number of events across Canada to describe the ERAP program and how it provides support to First Responders. Although we cannot accept every invitation, please share with us any training event, conference or trade show in which a TDG representative could participate.

If this issue leaves you hungry for more information on how the ERAP program works and what the program can 'bring to the table', contact the Chief, Response Operations (ERAPapplications@tc.gc.ca).

ERAP 101

By Anne-Marie Noël

An ERAP, or Emergency Response Assistance Plan, describes the steps to take in the event of a transportation incident involving certain dangerous goods. Activating the plan will bring technical experts and specially trained and equipped emergency response personnel to the scene to help local First Responders.

History

On November 10, 1979, a derailment in Mississauga, Ontario, ruptured several rail cars carrying chlorine and several propane tank cars. The chlorine leak led authorities to evacuate about 220,000 people, the largest peace-time evacuation in North America at the time. The derailment clearly demonstrated a need for specialized response teams and equipment to help First Responders during major releases of high risk dangerous goods.

Following this derailment, the Privy Council Office launched an inquiry. At its end, Justice Grange made several recommendations. Recommendation four (4) reads:

"As a condition of shipment anywhere in Canada of dangerous goods by rail, the shipper should have in effect a plan for control of the escape of his product in an accident and that plan should be submitted to and approved by the Minister or such agency or person as he may designate. The right to ship may be revoked at any time, if the plan is deemed inadequate, either in concept or operation. Nothing should be shipped unless we are able to deal with its escape."

Regulatory Framework

After the recommendations were published, Parliament adopted the Transportation of Dangerous Goods (TDG) Act in 1980. It has since been amended in 1992 and 2009.

Even though Justice Grange's recommendation targeted rail transport, the TDG Act, Section 7, which **applies to all modes of transport**, requires that before a person handles, offers for transport, transports or imports certain dangerous goods, the person must have an approved Emergency Response Assistance Plan (ERAP).

Note: Part 7 and Schedule I of the Transportation of Dangerous Goods (TDG) Regulations list the dangerous goods and the concentration or quantity for which an ERAP is required and also describe the scenarios for which an ERAP is required.

Dangerous Goods Requiring an ERAP

A person must consult subsections 7.1(1) to 7.1(7) of the TDG Regulations to determine if an ERAP is required. If a dangerous good meets the requirements of one of these subsections, an ERAP is required. An ERAP Calculator has been created to help understand these subsections. You will find a copy of the ERAP Calculator in the center page of this TDG Newsletter.

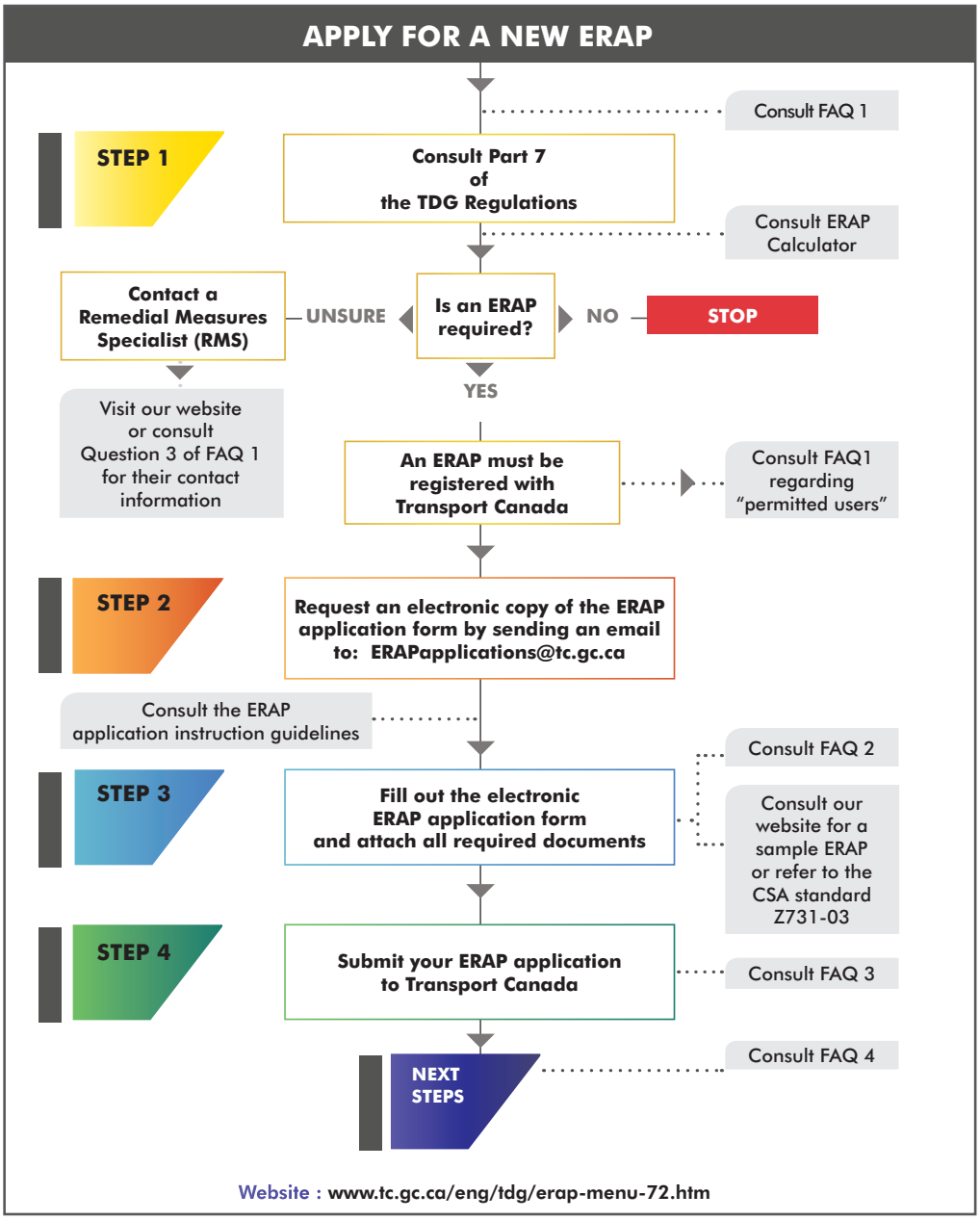
Note: The ERAP Calculator provides guidance, but does not replace the regulatory text found in the TDG Regulations.

HOW TO APPLY FOR AN ERAP

By Monique Lavoie

Coming soon, Transport Canada's revised Emergency Response Assistance Plan (ERAP) website will contain a new ERAP application package to ensure better process efficiency, improve consistency and quality control for clients having to apply, update, renew or terminate an ERAP.

The package will contain helpful FAQs, guidelines and tools to help understand and follow the Transportation of Dangerous Goods (TDG) Directorate's four steps to submit a NEW ERAP application to Transport Canada (TC). All the information pertaining to the following flowchart will be found in the ERAP application package



TC will assess all new applications or updates. To avoid delays, an applicant must prepare and submit complete documentation. If TC determines that all the required information has been submitted, TC will assign the package to a Remedial Measures Specialist (RMS) for review. However, if the package is incomplete or illegible, TC will ask the applicant to provide missing information by a specified date. This process may continue until TC receives all required information. Once the RMS review is complete, the Chief, Response Operations will advise if the application is approved, or refused.

HOW REMEDIAL MEASURES SPECIALISTS (RMS) ASSESS AN ERAP

By Nicolas Cadotte

Transporting dangerous goods, by its very nature, always poses some risk of spills, exposures and incidents. Transport Canada (TC) has identified dangerous goods with a higher potential risk, either because of the nature of the goods themselves, or an incident response requires specialized equipment or training. Shippers of these dangerous goods must prepare an Emergency Response Assistance Plan (ERAP) **before** shipment, to help address any potential incidents involving these goods.

Preparing an ERAP for submission to TC requires a company to identify the hazards involved and to provide an adequate response to incidents that could occur. They do this by ensuring they have a plan, trained employees to respond rapidly and the right equipment to handle the product in any situation that could arise.

More specifically, when RMS review an ERAP, they undertake a thorough review of the submission. The review aims to ensure that the following items have been covered:

1. **Contact Lists** of internal and external resources required to support the response. This would include contact information for technical experts, response contractors, suppliers, air or marine charters, etc.
2. **Roles and Responsibilities** of key personnel, including senior-level management (for authorizations), technical advisors, team leaders, response team members and specialized resources that are critical to the response (e.g., medical resources, media relations).
3. **Training and Exercise History** in the form of a training matrix showing that response personnel identified in the ERAP are trained on critical aspects of the response plan (e.g., product transfers, air monitoring, containment options, incident command system, etc.).
4. **Plan Activation Information** with the steps to take to activate it in an emergency. It must include procedures to notify key response personnel.

These are all required to ensure that a chain of command is established within the plan and to make sure training of key personnel is adequate and up-to-date.

5. **Hazard Identification and Analysis** in the form of a potential incident assessment, as required in the Transportation of Dangerous Goods (TDG) Regulations, paragraph 7.2(2)(h). This ensures that the ERAP holder has considered the potential incidents that could occur in transport and must include:
   - an analysis of how an accidental release could occur;
   - the potential consequences related to a release; and
   - response actions that could prevent the release or potential release.
6. **Internal and External Resources** required for response, including response contractors, technical advisors and resources for specialized tasks (e.g., vent and burn). This is required to make sure the equipment needed in the plan will be available and is appropriate for the product involved. The plan holder or contractor must identify how the response equipment identified in the ERAP:
   - Is adequate, available from a geographic perspective, can be used in a timely manner and serves its purpose.
   - Is inspected and maintained in a state of readiness.
   - Will be mobilized. Options must be appropriate for the geographical area of coverage and mode of transport (e.g., consider air and marine transport as appropriate).
7. **Written Emergency Response Procedures** for critical tasks (e.g., product transfer, containment). This also includes situation assessment to help responders define critical response objectives and priorities. The situation assessment must be re-evaluated continuously and must address:
   - The specific nature of the emergency (e.g., product, releases or potential for release, fire);
   - The modifying conditions (e.g., weather, location, topography);
   - The potential threats to life, property and the environment;
   - The appropriate protective and corrective strategies; and
   - The re-evaluation of the situation on a continuous basis.
8. **Damage Assessment** details for assessing damage to the means of containment to determine the best course of action (e.g. product transfer, depressurization). This is an essential part of the response and is requested to ensure that the containers will be properly assessed for any potential issues. The ERAP must include:
   - identified experts in damage assessment; and
   - the criteria or methodology they use to conduct a damage assessment.
9. **Third Party Agreements** (if applicable) between the plan holder and a response contractor. These agreements must describe the product(s) to which the contractors will respond and the equipment/personnel they supply. This is required to ensure the response contractors are known so they can be assessed to make sure they can perform the work they are contracted to do.

For more information on the required contents of an ERAP, please contact the Chief, Response Operations (ERAPapplications@tc.gc.ca).

WHO CAN ACTIVATE AN ERAP, WHEN AND HOW?

By Mathieu Lemay

When faced with a dangerous goods incident involving an Emergency Response Assistance Plan (ERAP), it is important to know who can activate it, when and how.

According to paragraph 7.2(2)(f) of the Transportation of Dangerous Goods (TDG) Regulations, an ERAP must include the area code and phone number to call to immediately activate the ERAP. As the number forms part of the approved plan, the plan holder may not change the number without first informing Transport Canada (TC). Plans submitted to TC must include a plan activation section that sets out the steps necessary to activate the ERAP in an emergency.

In order to bring clarity to this topic, let's answer the following questions.

What Does Activating an ERAP Mean?

Activation is the process where an ERAP plan holder is contacted through the ERAP telephone number when assistance is required. Activation of an ERAP commences when the ERAP holder clearly states/informs that they activate the plan. From that moment,

- Information about the incident is collected for the purpose of establishing assistance requirements;
- Technical advice is provided; and/or
- Assessed resources identified in the plan are mobilized.

The word "activation" may not necessarily mean that a response team must be mobilized to the incident scene.

Under What Circumstances Could Someone Activate an ERAP?

Most ERAPs are activated to assist persons responding to a dangerous goods emergency, by providing them technical advice or sending experts and specialized equipment to an incident site.

An ERAP complements plans that other organizations such as carriers or local / provincial authorities may already have in place. TC expects all responders to integrate these plans to mitigate the consequences of an incident involving dangerous goods requiring an ERAP.

How Can you Activate an ERAP?

A person can call the ERAP telephone number, which according to Section 3.5 of the TDG Regulations, must appear on a shipping document with the ERAP reference number, which identifies the plan holder.

Alternatively, the ERAP telephone number may be obtained by contacting the Canadian Transport Emergency Centre (CANUTEC), the carrier or the consignor. CANUTEC may ask you to provide the ERAP reference number, as this helps identify the plan holder and parties that will likely be involved in the response.

Note: The ERAP reference number must begin with either "ERP" or "ERAP" or "PIU" and may be displayed in the following format: 2-XXXX or 2-XXXX-XXX, where X represents a digit, e.g. ERP 2-1234-567.

What to Expect When Calling the ERAP Telephone Number?

The person calling the telephone number should reach someone who is trained and able to activate the plan. If there is a receptionist, guard, control room operator, or an answering service responding to the first call, that person must be able to contact an on-call technical advisor identified in the ERAP who can give technical advice, within approximately 10 minutes. TC also expects a technical advisor and/or a response team and equipment to reach the incident scene within a reasonable timeframe given the site location, weather conditions, accessibility or other circumstances that could delay mobilization.

Who Can Activate an ERAP?

TDG Regulations do not restrict who can request assistance where needed. This means a carrier, a consignor, a First Responder or any other party with access to the ERAP activation information may contact the telephone number. However, it is the shipper's responsibility to activate or not.

There are also two circumstances in which TC could direct a person to activate an ERAP to respond to an actual or anticipated release of dangerous goods in order to protect public safety. Section 7.1 of the TDG Act gives the Minister the authority to:

1. Direct a person with an approved ERAP to implement their plan to respond to an incident to which the plan applies.
2. Authorize a person with an approved ERAP, to implement their plan if the identity of the person required to hold an ERAP for the dangerous goods involved in an incident is unknown.

While CANUTEC, Remedial Measure Specialists and TDG Inspectors **do not** have the authority to activate an ERAP, they **can recommend** it be activated, based on the circumstances of a dangerous goods incident.

What Happens if an ERAP is Not Activated When it Should Have Been?

Subsection 7(5) of the TDG Act gives TC the authority to revoke an ERAP if it has grounds to believe that there has been

a release of dangerous goods to which the plan applies, and the plan was not used to respond to the actual or anticipated release.

The TDG Directorate has been working closely with the Emergency Response Task Force to bring forward improvements to the ERAP program, in particular to clarify the activation process. TDG is committed to providing awareness, reviewing the existing regulations on ERAP activation and providing further guidance to stakeholders and responders.

RESPONDING TO AN INCIDENT INVOLVING AN ERAP

By Jean-Guy Cormier

The **Canadian Transport Emergency Centre** (CANUTEC) is a service to help First Responders during emergencies involving dangerous goods. CANUTEC is one of the seven branches within the Transportation of Dangerous Goods (TDG) Directorate and works closely with the Compliance and Response Branch. The bilingual scientists working at CANUTEC specialize in chemistry, or related fields, and are trained in emergency response.

Essentially, CANUTEC brings all players involved in a dangerous goods incident together and provides technical and scientific advice during incidents involving dangerous goods. The advice may cover:

- Chemical, physical and toxicological properties of dangerous goods;
- Product incompatibilities and instabilities;
- Remedial measures for oil spills, fires or explosions;
- Life, property and environmental protection measures;
- Personal protective clothing and decontamination;
- Health hazards and first aid; and
- Chemical dispersion estimation.

CANUTEC participates in response simulations and scenarios with organizations such as emergency fire, police and medical services, training centres, chemical industries, as well as all levels of government.

The *Transportation of Dangerous Goods Regulations* list high-risk dangerous goods that require an emergency response assistance plan (ERAP). The ERAP helps local First Responders by giving them access to technical product experts as well as emergency response personnel trained and equipped to assist them in a product specific dangerous goods emergency. The ERAP describes the special measures, equipment and response procedures that could support a response to incidents involving high-risk dangerous goods. It also deals with emergency preparedness, including staff training, response exercises and response equipment maintenance.

When an ERAP is activated, CANUTEC:

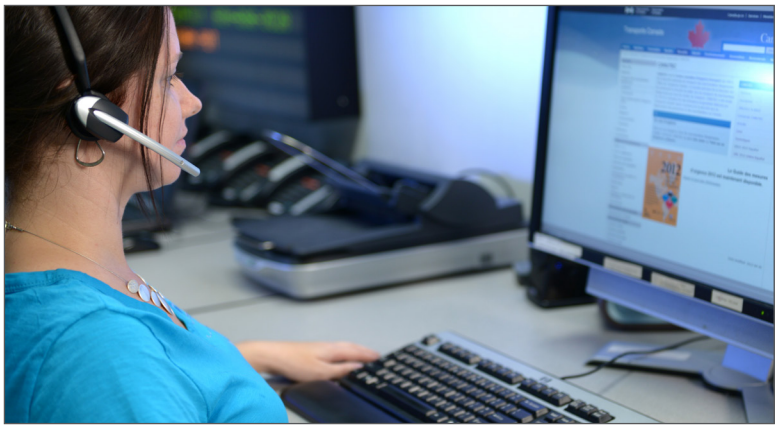
- Provides technical information on the dangerous goods transported under the ERAP. For example, CANUTEC can use specialized software to predict the travel distance of the chemical cloud, taking into account weather conditions (e.g., wind direction, sun, rain, temperature, etc.). Such information helps First Responders establish an isolation distance and develop an evacuation or shelter plan. In some cases, CANUTEC may ask Environment Canada to create a chemical cloud dispersion model.
- Accesses the shipper's name, the ERAP's geographical coverage, the information on the containers approved under the ERAP, and the ERAP telephone number; which aids the technical experts identified in the plan in the incident response.

Since a dangerous goods incident can evolve quickly and conditions may change, CANUTEC remains in close communication with the incident commander at the incident location as well as with a Transport Canada Inspector or a Remedial Measures Specialist (RMS) who may be at the site. CANUTEC also acts as a liaison between the different parties involved, collects necessary information and discusses the risks of the emergency and appropriate measures to take to protect public safety, the environment and infrastructure.

Based on the scale of the incident, CANUTEC also informs different federal and provincial departments such as Environment Canada, provincial environment departments, Natural Resources Canada, and other departments or agencies, as required.

CANUTEC can provide technical advice on dangerous goods, 24/7, to ensure sound management of an incident involving a high-risk product that requires an ERAP.

Don't hesitate to contact them!



ROLE OF A REMEDIAL MEASURES SPECIALIST (RMS)

By John Tomaselli

The Transportation of Dangerous Goods (TDG) Act and Regulations focus primarily on preventing incidents involving dangerous goods during transport. They also contain requirements for an effective and timely response when incidents occur. One of the requirements of the TDG Act that deals with consequence management is the Emergency Response Assistance Plan (ERAP).

A TDG REMEDIAL MEASURES SPECIALIST HOLDS THE SAME POWERS AS A TDG INSPECTOR.

An ERAP cannot foresee all eventualities, which may mean modifying the ERAP in a particular incident. This is why Section 19 of the TDG Act, gives a TDG RMS the authority to:

- Monitor compliance with the TDG Act and Regulations;
- Correct any non-compliance; and
- Take the necessary measures to prevent an imminent accidental release of dangerous goods or to reduce any danger to public safety resulting from the accidental release.

The period of greatest threat from dangerous goods is during and immediately following an incident. Responders may need to neutralize spilled dangerous goods, patch a leaking container and/or pay immediate and specific attention to damaged containers, from a small box to a railway tank car, to ensure it will not fail at the incident site or while being removed from that site.

The response procedures and assessment of the response requires special attention. For example, questions that may arise after a train derailment include:

- Has the tank car suffered enough damage to require special handling?
- How do we assess the damage?
- Is the proposed special handling sufficient?
- Is it safe to use adjacent tracks while the response is ongoing?
- Under what conditions is it safe to work on the site?
- Should there be an evacuation? If so, how far should it extend?

When Would Transport Canada (TC) Attend an Incident Involving Dangerous Goods?

The considerations that might result in sending a TC RMS to an incident site include:

- Proximity to populated or sensitive areas;
- Quantity and type of dangerous goods involved;
- Condition of the means of containment; and
- Whether an ERAP has, or should have been activated, etc.

TC **will attend** most incidents that require a response of more than 24 hours, such as a major train derailment involving tank cars transporting poisonous or flammable gases. In an event like this, TC would send an RMS who has knowledge of the means of containment, the dangerous goods, and the ERAP being activated (if applicable) for the incident site.

TC **may attend** incidents needing shorter response times or incidents where an ERAP is not required to monitor response activities, conduct a compliance inspection or investigation and obtain information on the condition of the means of containment and the behavior of the dangerous goods.

TC may also attend these incidents at the request of local authorities, provided an RMS could arrive in reasonable time.

What is the Role of a TDG RMS at an Incident Site?

The RMS's main role is to promote public safety by ensuring that appropriate remedial measures are taken at the incident site. He or she will help local authorities by:

- Giving advice and recommendations;
- Monitoring industry response, whether carriers, consignors or response contractors;
- Conducting his/her own site assessment and report to the local authorities and to TC; and
- Monitoring the implementation of any activated ERAP to ensure it functions well.

The RMS may initiate an investigation to determine if there was non-compliance before the incident in regards to requirements such as safety marks, shipping documents, selection and condition of the means of containment and the training received. This investigation could result in prosecution.

The RMS will gather information on the dangerous goods, their behavior, their impact and the damage they may have caused. This information may help modify or validate data in the "Emergency Response Guidebook" or amend some aspects of the regulations.

They will also gather information on the means of containment, its safety features and possible causes of failure, if any. This information may help validate specific design standards, modify existing standards, develop new ones or identify deficiencies in previously registered and approved designs that may not have performed as intended.

Note: An RMS's on-site observations may, in some cases, result in the issuance of protective directions or the recall of means of containments.

What Can a TDG RMS Offer On-Site?

The TDG RMS has knowledge, experience, skills and authority he or she may exercise in response to incidents involving dangerous goods.

The TDG RMS has sound knowledge of the:

- TDG Act and Regulations;
- Safety standards and safety requirements of the means of containment (railway tank cars, highway tanks, portable tanks, packaging and intermediate bulk containers);
- ERAPs;
- Remedial measures (neutralization, transfer, depressurization, etc.);
- Dangerous goods properties;
- Incident command system (ICS);
- Response resources available from industry;
- Site assessment procedures; and
- Incident response.

The TDG RMS supports local authorities by making recommendations on evacuations and remedial measures to undertake following an incident. Remedial measures include the transfer of the load, the handling of the damaged means of containment and when to activate the ERAP.

The TDG RMS also has specific authorities under the TDG Act to assist local authorities at the site of an incident involving dangerous goods.

How Does TC Learn about Incidents Involving Dangerous Goods?

The TDG RMS does not attend an incident site unless informed of it. This can happen from a number of sources.

If the incident occurs on road, local authorities must be notified immediately in accordance with Part 8 of the TDG Regulations. TC will only be informed if the First Responders contact the Canadian Transport Emergency Centre (CANUTEC), the incident is reported in the media or someone has called CANUTEC for assistance.

If the incident involves rail or air modes, the TDG Regulations require carriers to immediately notify TC (CANUTEC). If the incident involves the marine mode, the carriers must immediately notify the appropriate Coast Guard or Port Authority which, in turn, will notify TC.

Agreements with other federal and provincial departments (e.g. Environment Canada) and agencies (e.g. Transportation Safety Board) are in place to allow the exchange of information on incident notifications. All incident notifications to TC must be done through CANUTEC.

How Can Local Authorities Contact a TDG RMS?

It's easy. Simply **call CANUTEC at 613-996-6666** or ***666** anywhere in Canada.

ERAP – WHAT MUNICIPALITIES NEED TO KNOW

By Josée Boudreau

Emergency Response Assistance Plans (ERAP) can be of great help to municipalities during transportation of dangerous goods (TDG) incidents. This article will be reviewing the purpose, applicability and use of an ERAP in order to help familiarize municipalities with its benefits.

What is an ERAP?

An ERAP is a plan that describes what is to be done in the event of a transportation incident involving certain higher risk dangerous goods. The ERAP is required by the TDG Regulations for dangerous goods that require special expertise and response equipment to respond to an incident.

ERAPs supplement carrier and local/provincial emergency plans, and must be integrated with other organizations to help reduce, as much as possible, the consequences of an incident. This integration is usually accomplished by working within an incident management system such as an Incident Command System (ICS). The ICS integrates multiple authorities and responders into a common organizational structure designed to improve emergency response operations. The Incident Commander is the person with overall responsibility for the response and is usually a senior member of the local fire or police department.

When Does an ERAP Apply?

Section 7 of the *Transportation of Dangerous Goods Act,1992* requires a person to have an approved ERAP before offering for transport or importing certain dangerous goods.

Part 7 and **Column 7 of Schedule I** of the TDG Regulations list the dangerous goods and the concentration or quantity for which an ERAP is required and also describe the scenarios for which an ERAP is required.

Where Can a Person Find the ERAP Activation Information?

The TDG Regulations requires that when an ERAP applies, both the Transport Canada ERAP reference number as well as the ERAP telephone number be included on the shipping document. Although there are no specific location requirements for ERAP information on a shipping document, the ERAP activation information must be preceded or followed by the letters "ERP" or "ERAP" or "PIU (Plan d'Intervention d'Urgence)".

Who Can Call the ERAP Telephone Number?

Anyone requiring assistance during a transportation of dangerous goods incident can call the ERAP telephone number. Typically, it will be a First Responder on site of the incident and/or a carrier having charge, management, control of the dangerous goods and means of containment involved that would call the ERAP telephone number. In accordance with Section 7 of the TDG Act, the ERAP holder is responsible for activating the plan and for notifying the Canadian Transport Emergency Centre (CANUTEC) that the plan has been activated. Failure to activate the ERAP when a release or an anticipated release of dangerous goods has occurred may result in the revocation of the ERAP.

How Can an ERAP be Activated?

The ERAP will be activated when the ERAP telephone number is called and assistance is requested during a TDG incident. Activation may range from technical advice on the phone all the way to a full on-site response, including equipment and technical advisors, depending on the incident.

CBRNE/ERAP UPDATE

By Fred Scaffidi

Many aspects of the Emergency Response Assistance Plan (ERAP) program are changing. To name but a few, the Transportation of Dangerous Goods (TDG) Directorate is reviewing the criteria for evaluating ERAPs; developing a new ERAP database; tracking assessments in order to develop new service standards and hiring new inspectors across the country. TDG also increased the number of Remedial Measures Specialists positions to seventeen nationally.

We have also created an Emergency Response Task Force (ERTF) and expanded ERAPs to include flammable liquids. Please refer to the articles on the ERTF.

While the ERAP program maintains a focus on safety, an unfortunate reality is that we must be ready when people intentionally plan to do harm using dangerous goods. Many of you already know the acronym CBRNE (Chemical, Biological, Radiological, Nuclear and Explosives), which refers to using these agents, many of which are commonly in transport as dangerous goods, in a deliberate malevolent (terrorist) act.

As described in the National CBRNE Resilience Strategy (the Strategy), Transport Canada's (TC) role is to enhance Canada's domestic preparedness and response. This will be achieved via a program to access trained and verified emergency responders and to ensure assistance is available to authorities to reduce the hazards and consequences of dangerous goods used in terrorism situations. As you can imagine, changes to the ERAP program have improved our preparedness to deal with a CBRNE event, as many of the same resources are involved.

The CBRNE Response Program is designed to respond to the requirements of the Strategy and is intimately linked to the ERAP Program. It has been moving forward with the principle objective of informing the first response community of the capabilities and expertise that exists among ERAP holders (this includes response contractors that provide services under an ERAP).

TC works in close partnership with Defense Research and Development Canada – Center for Security Science (DRDC – CSS) on CBRNE-related projects. In fact, TC and Environment Canada have been co-leaders of the DRDC - CSS Chemical Community of Practice since 2009.

One of our joint activities has been to develop and deliver tabletop exercises that simulate the response to a CBRNE related act. To date, TDG has hosted five tabletop exercises:

- Hamilton in 2012
- Calgary in 2013
- Montreal and Halifax in 2014
- Toronto in 2015

In November 2015, we hosted a final tabletop exercise in Vancouver.

Using a facilitated approach, participants (including representatives from Fire, Police, EMS, Environment Canada, TC, shippers, ERAP holders and others) work through the response revealing any issues or areas for improvement. These tabletop exercises help participants:

- Understand response capabilities available to First Responders at a CBRNE incident;
- Observe how responders will make use of capabilities and expertise under an ERAP during an emergency;
- Explore how response contractors will fit into a typical incident command structure (awareness of protocols and concept of operations); and
- Understand the hand-over process to industry for site remediation and return to normal operations.

Our experience has been that the First Response community welcomes the capabilities ERAPs provide and are 'at the table' ready to assist. The ERAP holders/contractors highlight what additional support they can provide during a CBRNE incident in the way of technical expertise, personnel, and specialized equipment.

These tabletops provide a secondary benefit — by allowing people who may have to work together at an actual large-scale event to meet — before such an event occurs.

TDG also plans to develop a Code of Practice (COP) resulting from lessons learned during these tabletop exercises. The COP will specifically target industry response to TDG events with a criminal component and provide guidance to government planners in preparing for CBRNE incidents in their communities.

Moving forward, the CBRNE Response Program will:

1. Continue to pursue areas for collaboration with DRDC – CSS in such areas as conducting exercises and developing the Code of Practice.
2. Develop a database of available response capabilities in the event of a CBRNE incident.
3. Conduct research on issues such as cost recovery and liability protection for responders.
4. Further engage our ERAP holders in whatever way possible, as we cannot overstate their value to us in a CBRNE incident.

THE EMERGENCY RESPONSE TASK FORCE – WHO WE ARE AND OUR MANDATE

By Mylaine DesRosiers & Anastasia Karvounis

Establishing the Emergency Response Task Force (Task Force) was one of many Transport Canada initiatives in response to the Transportation Safety Board's interim recommendations following the July 6, 2013 Lac-Mégantic incident. In an April 2014 announcement, the Minister of Transport gave the Task Force a one-year mandate to conduct research, assess, evaluate and make recommendations to enhance the Emergency Response Assistance Plan (ERAP) program, with a primary focus on the transport of flammable liquids by rail. This mandate was eventually extended to April 2016.

The Task Force Secretariat

A new Secretariat supports the Task Force by:

- Organizing consultation activities with the public and private sector;
- Producing meeting records and reports;
- Preparing and overseeing data collection, analysis and research projects; and
- Liaising with Transport Canada and other levels of government.

Staffed in June 2014, the Secretariat launched a call to prospective members, established a webpage and organized the Task Force's inaugural meeting on July 10, 2014.

The Membership

THE TASK FORCE PROVIDES AN IMPORTANT FORUM FOR EMERGENCY COMMUNITIES AND MUNICIPALITIES.

The Task Force Chair is Chris Powers, a retired Fire Chief and a member of the Canadian Association of Fire Chiefs. The Task Force has a growing membership of 81 registered participants, representing a vast spectrum of the transportation, chemical producers and distributors industries, as well as the response communities. For example:

- The transportation industry is represented by railway associations (CN, CP and RAC), Teamsters and the Canadian Trucking Alliance.
- Chemical producers and distributors are represented by the Canadian Association of Chemical Distributors, Canadian Association of Petroleum Products (CAPP), Canadian Fuels Association, Chemistry Industry Association of Canada, Canadian Fertilizer Institute (CFI), Canadian Propane Association and the American Renewable Fuels Association.
- Emergency response communities and municipalities are represented by the:
  - Lac-Mégantic Fire Department and its Fire Chief Denis Lauzon;
  - Canadian Association of Fire Chiefs;
  - Canadian Volunteer Fire Services Association;
  - Canadian Council of Fire Marshals and Commissioners;
  - Aboriginal Firefighter Association of Canada;
  - Canadian Association of Chiefs of Police (CAFC);
  - Emergency Response Assistance Canada;
  - Canadian Emergency Response Contractors Alliance;
  - International Association of Emergency Managers;
  - Justice Institute of British Columbia; and
  - Federation of Canadian Municipalities.
- Transport Canada is represented by internal experts including the Canadian Transport Emergency Centre (CANUTEC) advisors, regional Remedial Measures Specialists, and representatives of the Compliance and Response Branch.

THE TASK FORCE BUILDS PRIVATE AND PUBLIC SECTOR PARTNERSHIPS THAT ARE VALUABLE TO THE ONGOING EFFORTS TO IMPROVE PUBLIC SAFETY.

- Participants also represent:
  - Ministère de la sécurité publique du Québec;
  - Environment Canada;
  - British Columbia Department of Environment;
  - Manitoba Environmental Compliance and Enforcement Department; and
  - Department of the National Defence - Center for Security Science (CSS-DND).

Contributors

The Task Force seeks the advice of many specialist organizations that have provided valuable assistance to its members. For example:

- The Transportation Community Awareness and Emergency Response Initiative (TRANSCAER), which raises awareness on flammable liquids transported by rail in communities; and
- The American Renewable Fuels Association, an authoritative voice of the ethanol industry in the United States, which shared their training program for adaptation to crude oil.

A STRONG EMERGENCY RESPONSE NETWORK IS AN IMPORTANT OUTCOME THAT WILL OUTLAST THE LIFE OF THE TASK FORCE.

The Task Force has also been able to rely on support from:

- ENFORM, an oil and gas industry safety hub that promotes health and safety practices and provides training and certification services. ENFORM joined forces with the CAFC and CAPP to provide assistance and resources towards developing an online basic training program on flammable liquids.
- The National Fire Protection Association (NFPA), a U.S.-based organization recognized internationally as the standards body for fire service response standards in North America. At the request of the Task Force, the NFPA Standard Council is now discussing a new "*Standard on Competencies for Responders to Incidents of Flammable Liquids in Transport – High-Hazard Flammable Trains*".

The Task Force is also fortunate in having two experts in chemistry and transportation of dangerous goods (TDG) emergency response, who undertook the colossal work of analyzing and categorizing 663 Class 3 flammable liquids, based on their physical and chemical properties.

The Importance of the Task Force

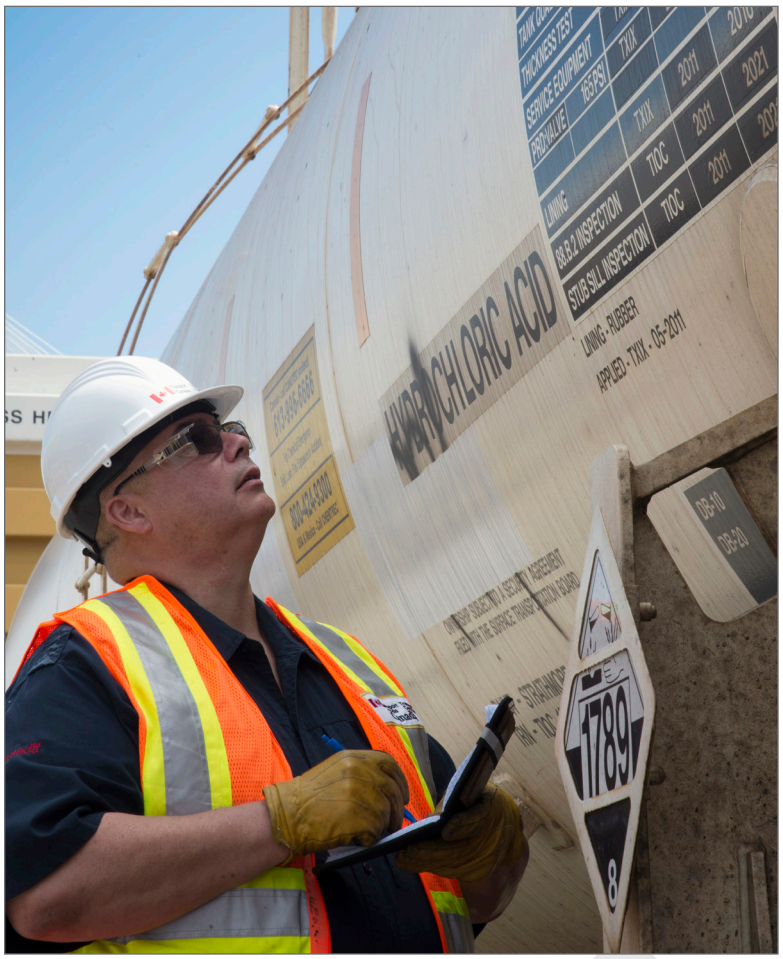
The Task Force provides an important and relevant forum for addressing public concerns over the dramatic increase of the transportation of flammable liquids by rail. Transport Canada greatly values the advice of this engaged and broad array of stakeholders, knowledge and experience.

The Task Force participants have demonstrated high interest and impressive dedication and productivity, considering the aggressive timelines and scope of the one-year mandate. They have participated in over 75 meetings, using an inclusive and consensus approach in their discussions and have submitted 33 recommendations to the Director General of TDG.

The Task Force continues to play an important role in enhancing public safety. In addition to their important achievements, the participants developed an impressive network, built on trust, by coming together and joining forces. Building trust ahead of emergencies is one of the key components of a successful response. Canadian communities can only benefit from a strong emergency response network. Whatever the future holds, the emergency response network is an important outcome that will outlast the life of the Task Force.

The Task Force successfully created private and public sector partnerships that are invaluable to the ongoing efforts to improve the safety of the transportation of dangerous goods.

To learn more about the Emergency Response Task Force, please visit www.tc.gc.ca/eng/tdg/safety-menu-1186.html



THE EMERGENCY RESPONSE TASK FORCE – THE RECOMMENDATIONS

By Mylaine DesRosiers & Anastasia Karvounis

Finding solutions to strengthen support for First Responders for rail incidents involving flammable liquids in Canada: that is the Emergency Response Task Force's raison d'être.

Members from the petroleum, chemical and rail industries, First Responder associations and government authorities from across the country joined forces and began discussions in July 2014. Over the past year, the Task Force has issued 33 recommendations to Transport Canada (TC).

The recommendations address issues under the following themes:

Building on Protective Direction 33

AWARENESS AND A NETWORK BUILT ON TRUST AHEAD OF INCIDENTS ARE CRUCIAL TO A STRONG RESPONSE CAPACITY IN CANADA.

Protective Direction 33 required industry to submit Emergency Response Assistance Plans (ERAP) to TC for approval within 150 days for nine flammable liquids. The Task Force members felt industry would benefit from a collective approach in identifying the need for ERAPs for other flammable liquids. They also felt First Responders needed to be better informed of the additional resources the ERAP holder could provide in case of an incident.

Members made several proposals to help TC enhance its outreach and awareness of the ERAP program with a focus on flammable liquids. One of these proposals resulted in the inclusion of basic ERAP program information in the 2016 Emergency Response Guidebook currently under development.

Incident Command and Preparedness

As was the case in the Lac-Mégantic incident, and is often the case in large-scale rail incidents, multiple agencies and organizations attend an incident, each having its own perspective and responsibilities. This presents a unique set of challenges for managing emergency response efforts. The Task Force agreed that an efficient and coordinated response, regardless of the nature of the incident, starts with a "Unified Command Structure" (UCS).

Other key components for a successful emergency response include:

- Clear roles and responsibilities;
- Giving public safety priority over enforcement activities until the incident is stabilized and public safety is assured; and
- Building trust ahead of incidents by networking, training and participating in exercises.

First Responder Training

The standards currently used to train firefighters in North America are developed by the U.S.-based National Fire Protection Association (NFPA). Currently, these standards address mostly incidents involving weapons of mass destruction. As a result, there are no training standards that specifically address crude-oil rail incidents. In January 2015, the Task Force asked the NFPA to develop a new competency standard on flammable liquids firefighting.

In the meantime, Task Force members are recommending a three-phase approach:

Phase 1 – develop an online basic training program for Canadian First Responders. This program, which will be offered at no cost and in both official languages, should be completed by the end of December 2015.

Phase 2 – provide operational level training (hands-on) at provincial fire colleges or training facilities. The objective of this program would be to provide First Responders with an appropriate level of training to respond to a rail incident involving large volumes of flammable liquids.

Phase 3 – provide an on-going operational and specialized training curriculum.

Note: The second and third phases of the program are expected to be developed by the Summer of 2016.

Improving The ERAP Program

ERAP PROGRAM EXPECTED OUTCOME IS TO PROVIDE TIMELY, APPROPRIATE, SAFE AND COORDINATED RESPONSE SUPPORT.

- Identify additional flammable liquids for ERAP
  - TC amended its TDG Regulations on December 31, 2014, to include ERAP requirements for the nine flammable liquids identified in Protective Direction 33, as well as UN3494 and UN1987. In the case of UN1987, ALCOHOLS, N.O.S., TC recognized that large volumes of ethanol originating in the U.S. were being transported to, or transiting through, Canada as UN1987 without an ERAP. This drew attention to the possibility that other flammable liquids were potentially being transported by rail without an ERAP.
  - The analysis of 663 Class 3 flammable liquids (Packing Groups I, II and III) resulted in their categorization based on physical and chemical behaviors. This exercise identified 43 additional products as presenting the highest hazards for potential inclusion in the ERAP program.
  - TC is using those findings, along with tank car volumes and Geographic Information System (GIS) mapping of rail routes, to conduct a risk assessment in order to identify other flammable liquids, if any, which may require an ERAP before shipping.
- Include a competency profile for the Flammable Liquid Technical Advisors, identified in ERAPs, complete with training and accreditation standard requirements.
- Include a "Response Tier and Timelines" in ERAPs, based on industry's recognized best practices. It would clarify the three different levels of service ERAP holders provide following a rail incident and estimated timeframes.
- Monitor ERAP program performance against four expected outcomes: Timely, Appropriate, Safe and Coordinated (TASC) response support.

- Require railways to provide train consist information to the Canadian Transport Emergency Centre (CANUTEC) in an electronic format, immediately upon becoming aware of a rail incident involving the release or potential release of dangerous goods.

These milestones have been instrumental in enhancing safety during the transport of dangerous goods. Such achievements demonstrate the dedication from the participants and many contributors. Some initiatives remain ongoing due to the nature of the projects.

AMENDMENT TO THE ERAP REQUIREMENTS (PART 7 OF THE TDG REGULATIONS)

By Katy Joncas

Since the July 2013 Lac-Mégantic incident, Transport Canada (TC) has taken a number of actions to improve public safety when transporting dangerous goods in Canada.

In fall 2013, the Minister struck a working group of the Transportation of Dangerous Goods (TDG) General Policy Advisory Council to examine expanding the requirements for Emergency Response Assistance Plans (ERAPs) to crude oil and other Class 3 Flammable Liquids.

On January 23, 2014, the Transportation Safety Board of Canada (TSB) issued an interim recommendation that TC "at a minimum, require ERAPs for the transportation of large volumes of liquid hydrocarbons."

In light of this recommendation and the need to adapt the ERAP program, TC established an Emergency Response Task Force. Its primary objective is to make recommendations to improve public safety at dangerous goods rail incidents involving flammable liquids. The Task Force also has the mandate to conduct further research, assess, evaluate and make recommendations to advance and improve the ERAP program.

On April 23, 2014, TC issued Protective Direction No. 33 that required the industry to submit ERAPs to TC for approval, within 150 days, for the following flammable liquids:

- UN1170 ETHANOL;
- UN1202 DIESEL;
- UN1203 GASOLINE;

- UN1267 PETROLEUM CRUDE OIL;
- UN1268 PETROLEUM DISTILLATES N.O.S.;
- UN1863 FUEL, AVIATION, TURBINE ENGINE;
- UN1993 FLAMMABLE LIQUID, N.O.S.;
- UN3295 HYDROCARBONS, LIQUID, N.O.S.; and
- UN3475 ETHANOL AND GASOLINE MIXTURE.

In June 2014, the TSB published an "Assessment of the Response to Rail Safety Recommendation R14-03" saying, "The Protective Direction No.33 ensures that there will be approved ERAPs in place for the shipment of higher-risk liquid hydrocarbons. In addition, TC has included other flammable liquids, including ethanol in the ERAP requirements. Therefore, the Board assesses the response to Recommendation R14-03 as Fully Satisfactory."

www.tsb.gc.ca/eng/recommandations-recommendations/rail/2014/rec-r1403.asp

In December 2014, amendments to Schedule 1 and Subsection 7.1(6) of the TDG Regulations introduced ERAP requirements for rail transport of the dangerous goods mentioned in Protective Direction No.33 as well as two additional dangerous goods, UN1987, ALCOHOLS, N.O.S. and UN3494, PETROLEUM SOUR CRUDE OIL, FLAMMABLE, TOXIC. With the TDG Regulations coming into force, the Protective Direction was revoked.

Note: Adding UN1987, ALCOHOLS, N.O.S. addressed the large quantities of ethanol transported under this number from the United States.

In March 2015, the TSB closed the file on Rail Safety Recommendation R14-03 by publishing the results of a Reassessment of the Response to Rail Safety Recommendation R14-03, which said "The Board acknowledges TC's initiative to also apply the new ERAP requirements to ethanol and considers the response to the recommendation to be fully satisfactory. This deficiency file is closed."

In May 2015, Regulations Amending the *Transportation of Dangerous Goods Regulations* (TC 117) were published in Part II of the *Canada Gazette*. This publication included:

- Requirements for new tank cars to transport flammable liquids;
- A clarification of the ERAP requirements for the dangerous goods listed above, by moving the ERAP index in Schedule 1, Column 7 under Subsection 7.1(6), which now reads:

  "person who imports or offers for transport any of the following dangerous goods by rail in a tank car must have an approved ERAP if the quantity of the dangerous goods in the tank car exceeds 10 000 L."; and
- Special Provision 150 in Schedule 2, to remind the reader that ERAP requirements apply to the dangerous goods subject to this special provision.

  For greater clarity, Special Provision 150 refers the reader to subsection 7.1(6) for the dangerous goods in question, and reads as follows:

  "An emergency response assistance plan (ERAP) is required for these dangerous goods under subsection 7.1(6) of Part 7 (Emergency Response Assistance Plan). UN1170, UN1202, UN1203, UN1267, UN1268, UN1863, UN1987, UN1993, UN3295, UN3475, UN3494".

ERAP – DEMONSTRATING YOUR RESPONSE CAPACITY AND SHARING YOUR KNOWLEDGE

By Eve Poirier

Since the train derailment in Saint-Hyacinthe, Québec on December 30, 1999, the Transportation of Dangerous Goods (TDG) Remedial Measures Specialist (RMS) located in the Québec region has worked closely with Valero, an international manufacturer of transportation fuels, and more specifically with the emergency response team of the Jean-Gaulin refinery located in Saint-Romuald, Québec.

Following this incident, the RMS has worked with Valero's motivated people on developing their emergency response plan for the transportation of oil and ensuring adequate capacity to respond to rail incidents that may involve up to 68 tank cars full of diesel, gasoline and jet fuel. When the collaboration began, they were in the early days of identifying the material resources needed to address the fire aspect of a response outside a fixed facility. Moreover, they didn't have access to pre-established standards that provided answers to the many questions about this type of situation. Therefore, they had to pull the sought-after information from different standards, industry practices and their own respective experiences with derailments involving these types of dangerous goods.

The RMS has learned a great deal about all aspects of firefighting from Valero. Not only did Valero demonstrate its capacity to respond to many different derailments (and exercises), but its emergency response team members also shared their knowledge so the RMS could better understand how to "read a fire", apply fire fighting strategies and effectively administer foam and other extinguishing agents. In fact, the RMS had the opportunity to participate in Valero's fire brigade training in Texas at the Texas A&M Engineering Extension Service (TEEX) facilities last winter, which was a memorable experience. The RMS now understands the respect that First Responders, specifically firefighters, have for fire.

Foam has been identified as an effective tool for fighting flammable liquid fires. However, when it comes to foam, responders must store this substance under specific conditions to ensure its integrity when the time comes to use it, and effectively administer it during a response.

Administering foam may seem simple, but it is actually complex in certain respects. Someone needs to keep a close eye on the team who applies the foam, to make sure everything is going as planned. Acting as troubleshooter for a team applying foam when the flames are at their highest is a very important task.

Regardless of the dangerous good being registered by a person for an Emergency Response Assistance Plan with Transport Canada, a person must do more than simply demonstrate his response capacity. The person must, like Valero,

- Share his/her knowledge with First Responders and other partners that play a role at the site of a transportation of dangerous goods incident; and
- Help establish high-quality standards for responding to such situations when they unfortunately occur.

TDG SAFETY AWARENESS PROGRAM

By Anne-Marie Noël

Transport Canada's Transportation of Dangerous Goods (TDG) Directorate:

- Develops safety standards and regulations for industry;
- Monitors for compliance; and
- Provides expert advice (through the Canadian Transport Emergency Centre — CANUTEC) on dangerous goods incidents.

While we always work to promote public safety in the transportation of dangerous goods by all modes of transport in Canada, the increase in dangerous goods shipments over the years makes it clear that Canada will benefit from the new TDG Safety Awareness Program. Its Safety Awareness Program Team (SAPT) targets three audiences: municipalities (elected officials and technical services staff), First Responders and industry, including manufacturers, shippers and carriers.

The SAPT began its outreach in April 2015 by attending events such as the Federation of Canadian Municipalities and the Canadian Association of Road Safety Professionals. The SAPT is also engaged in providing presentations in multiple TRANSCAER events to reach out to its targeted audiences. The Transportation Community Awareness and Emergency Response initiative (TRANSCAER®) started in Canada in 1985 by the **Chemistry Industry Association of Canada (CIAC)**. Today, it's led by CIAC and the **Railway Association of Canada (RAC)**. TRANSCAER® members work with municipalities, emergency responders, and residents in communities along transportation routes, to make sure they are informed about the products being moved through their area, and are prepared to respond to potential incidents involving dangerous goods.

TDG was represented at many TRANSCAER events, such as Gravenhurst and Sault Ste. Marie in Ontario, Bécancour and Richmond in Québec, Moose Jaw in Saskatchewan and Lloydminster in Alberta. More TRANSCAER events are in our scope in the Prairie and Northern Region as well as in the Pacific Region.

Since there is an increasing volume of dangerous goods being transported by rail, the TDG Directorate also started to work with Transport Canada Rail Safety in order to develop common awareness material and jointly attend events.

In response to the Lac-Mégantic incident, the Safety Awareness Program Team is also developing specific safety awareness training for First Responders and municipalities. In this fiscal year, the team will reach out to municipalities to measure interest and deliver training. This training will focus on the TDG program, the regulatory requirements, the Emergency Response Assistance Plan (ERAP) program and the Incident Command System (ICS).

To learn more about the TDG Safety Awareness Program, please email: TC.TDGSafetyAwareness-SensibilisationalasecuriteduTMD.TC@tc.gc.ca

THE EMERGENCY RESPONSE GUIDEBOOK (ERG) 2016

By Alison Butko

The Emergency Response Guidebook (ERG) is a valuable resource for First Responders developed by Transport Canada, the United States Department of Transportation (DOT), the Secretariat of Transport and Communications of Mexico and the Centre de Información Química para Emergencias of Argentina (CIQUIME). It is updated every four years and published in English, French and Spanish under the North American Free Trade Agreement.

First Responders use the ERG to identify chemical and physical hazards of materials involved in a transportation of dangerous goods incident. It includes the chemical materials listed as part of the United Nations (UN) Model Transportation of Dangerous Goods (TDG) Recommendations, which form the basis for TDG Regulations in many countries around the world.

The Guidebook is free to First Responders in Canada, and should be carried in each emergency response vehicle (police car, fire truck and ambulance) to help harmonize First Responders' initial emergency response actions in dangerous goods incidents.

The new 2016 edition will:

- Contain many revised and updated sections:
  - A new "How to use this Guidebook" flowchart instead of written instructions;
  - Updated rail car and road trailer identification charts;
  - Updated pipeline information pages;
  - New shipping names and their UN numbers, in accordance with the 18th and 19th editions of the UN Model TDG Recommendations; and
  - Updates to Table 1 and Table 3, which provide protective action distances for public protection from the release of toxic by inhalation (TIH) materials, based on new chemical release models.
- Include new topics, relevant to emergency response to dangerous goods incidents:
  - Information about the Globally Harmonized System (GHS) of classification and labelling of chemicals;
  - New guide pages for adsorbed gases; and
  - Information about Emergency Response Assistance Plans (ERAP), which:
    - Includes a short section to inform First Responders about ERAPs in Canada; and
    - Briefly explains the ERAP program, defines an ERAP, and explains how to activate one.

You can learn more about the ERG on the Canadian Transport Emergency Centre (CANUTEC) website:
www.tc.gc.ca/eng/canutec/guide-menu-227.htm