



# TRANSPORTATION OF DANGEROUS GOODS NEWSLETTER

We invite you to read the **2019 Retrospective edition** of the Transportation of Dangerous Goods (TDG) Newsletter. This issue includes a look back at some of the most important topics from the past year.

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## SURVEY

We would like to thank all of our readers who took the time to complete our short survey in February of 2019. Your feedback was really appreciated.

When we asked our readers what they would like to read about in our Newsletter, new trends and emerging technologies topped the list.

Have your say. Our next survey will be sent in 2020. We look forward to hearing from you.



## WORD FROM THE DIRECTOR GENERAL

By Benoit Turcotte

As the newly appointed Director General of the Transportation of Dangerous Goods (TDG) Directorate, I'm pleased to introduce the 2019 Retrospective edition of the TDG Newsletter. This issue looks back at some of the most important TDG-related topics from the past year.

During my years with TDG, I have witnessed the important contribution that our stakeholders bring with their knowledge and expertise to furthering our mutual goal: the safe and secure transportation of dangerous goods in Canada. A great example of this contribution is those who participated at the [TDG Research Symposium](#) earlier last year, which provided a wealth of ideas that will help identify gaps in current TDG research.

Our continued collaboration will be even more important moving forward, as the transportation sector continues to evolve at an ever-increasing pace, becoming more and more complex with changes largely driven by innovation in technology.

There is a lot of work ahead, but TDG is committed to adapting our business practices to an ever-changing transportation sector, as well as looking at how to provide better services to you. A means of achieving success is through TDG's Transformation initiatives, which will be the focus of the next TDG Newsletter.

Beginning this year, we will be publishing the TDG Newsletter twice a year – Spring and Fall – to provide the latest information on the issues and initiatives affecting the transportation of dangerous goods.

I hope you enjoy this edition of the newsletter!

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# NEW ERAP ONLINE SERVICES (EOS)

By Mathieu Lemay and Jason Poulin



On January 28, 2019, we launched a web-based system called ERAP Online Services (EOS). This new system aligns with our digital strategy to modernize how programs and services are delivered. It gives applicants and their delegated Emergency Response Assistance Plan (ERAP) writers a secure and easy-to-use tool to:

- apply
- change
- renew; or
- manage their ERAP information

The new system improves and replaces the previous ERAP application process. This means all new applications, renewals or changes to an approved ERAP must now be submitted using EOS.

We no longer accept PDF application forms or changes over the phone. The new system will make it easier to update and renew ERAPs. It will also collect data that will help us continue to improve the ERAP program.

## Helpful tips

Before you submit an application in [EOS](#), check the [ERAP webpage](#) to:

- [find out if you or your dangerous goods need an ERAP](#)
- [prepare your plan and your application](#)
- [apply to have your ERAP approved](#)
- [understand what it means to have an ERAP](#)

## Using EOS

To submit a new application or an update for approval, you need to complete all 12 sections. After you submit the application, you will receive a decision within 20 business days.

If you already have an approved ERAP, you'll need to reapply online using EOS:

- when any of the information in [Section 7.3 of the TDG Regulations](#) changes during your approval period
- by January 2021 (even if your approval period extends beyond that date)
- at least 90 days before your ERAP expires, in case we ask for changes

## Contact us

We're here to help. If you have any questions on how to access the system, or on completing your application, contact the [TDG Response Operations Group](#).

## Related links

- [Emergency Response Assistance Plans](#)
- [CANUTEC](#)
- [Transportation of Dangerous Goods Regulations \(TDG Regulations\)](#)
- [How to use the TDG Regulations](#)

# CANUTEC – 40 YEARS OF EMERGENCY RESPONSE ADVICE

The Canadian Transport Emergency Centre (CANUTEC) has been answering calls since 1979, and 2019 marked its 40th year of advising and assisting with transportation emergencies that involve dangerous goods.

First responders across the country call CANUTEC to get technical dangerous goods information and emergency response advice. CANUTEC advisors are available 24/7 to give their expert advice on what to do and what not to do during incidents involving the transportation of dangerous goods such as explosives, gases, flammable liquids, and corrosive substances.

They have been involved in responding to several significant cases, including a major rail incident in Mississauga in November 1979 involving chemicals and explosives which led to the evacuation of more than 200,000 Canadians, and the tragic derailment in Lac-Mégantic in 2013. These are only two of the thousands of events they've been involved in over the years.

CANUTEC advisors receive around 30,000 calls and emails each year, or an average of 82 each day. They are scientists with backgrounds in fields such as chemistry, biochemistry and chemical engineering with training in key areas like hazmat emergency response. They provide immediate bilingual advice and critical information, on such topics as:

- properties and incompatibilities of dangerous goods
- health hazards and first aid
- remedial actions for the protection of life, property and the environment
- protective actions and evacuation distances
- personal protective clothing and decontamination
- help in implementing an Emergency Response Assistance Plan
- teleconference services to bring experts and first responders together during an incident

Should you be involved in a dangerous goods incident, never hesitate to call CANUTEC at:

- 1-888-CANUTEC (226-8832) or 613-996-6666
- \*666 from a mobile phone

CANUTEC offers another crucial service to Canadians: a free registration service for Canadian consignors of dangerous goods who wish to use CANUTEC's 24 hour number on their shipping documents. The Registration Services Team consists of a bilingual team of 7 employees that offer information and assistance to consignors. They also manage a constant influx of updated safety data sheets (SDSs) to be added to the database used by advisors and assists TDG Inspectors by offering information on the registration status of consignors. The Registration Services Team can be reached at 613-947-5048.

## Quick Facts

- When an incident occurs, support begins immediately following a phone call to CANUTEC
- On average, CANUTEC deals with 2,100 incidents, as well as participates in approximately 450 simulations annually
- CANUTEC maintains a database of SDSs on more than 3 million products and receives on average 35,000 per month
- Over 24,000 consignors are registered with CANUTEC
- CANUTEC is operated by the [Transportation of Dangerous Goods \(TDG\) Directorate](#) of Transport Canada and their mandate is to promote public safety in the transportation of dangerous goods by all modes, while making sure that there is an appropriate prevention and response in place to protect Canadians
- CANUTEC works with partners from the United States of America, Mexico and Argentina, to publish the [Emergency Response Guidebook \(ERG\)](#) for use by emergency services personnel who may be the first to arrive at the scene of a transportation incident involving dangerous goods
- The 2020 edition of the ERG is well underway and includes many changes (please refer to the [New Emergency Response Guidebook \(ERG\)](#) in the works article for additional information)

**Thank you CANUTEC for 40 years of expert emergency response advice!**



## CANUTEC SIMULATIONS



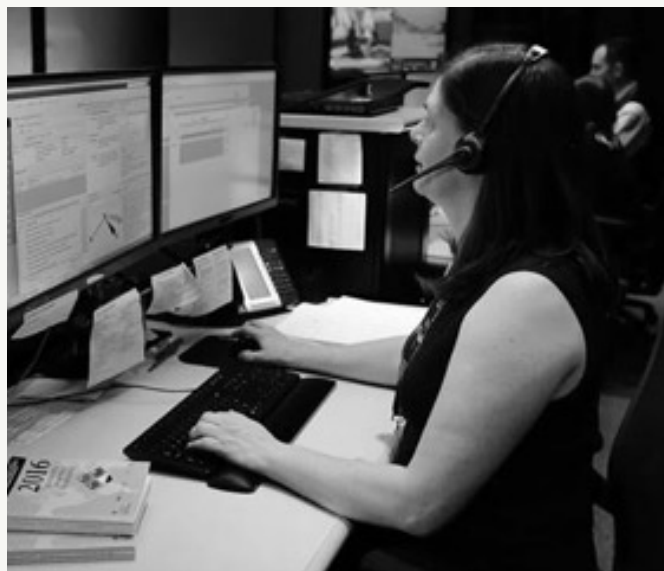
Did you know that Canadian Transportation Emergency Centre (CANUTEC) helped emergency responders by participating in 341 simulations in 2018?

Every day, CANUTEC gets calls from first responders, members of industry, carriers, municipalities, emergency planning officers, and government organizations. These calls can be about training, research, simulation exercises or just to ask a question.

CANUTEC's experienced specialists, trained in both science and dangerous goods, help make sure that training scenarios are as realistic as possible.

Responding to, and managing a dangerous goods incident is never easy. Information is often unavailable or limited. Practicing helps first responders prepare by making sure they're aware of the resources available before an emergency occurs.

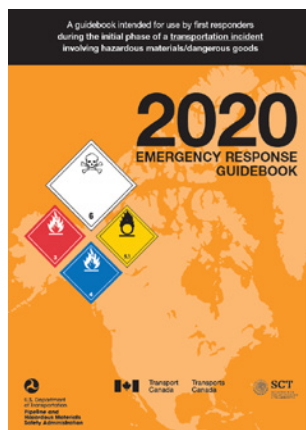
For more information on CANUTEC's contribution to Emergency Preparedness and Training, [see our article Vol.37 No.1, June 2017](#), or contact [CANUTEC by email](#), or by calling 613-992-4624.



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## NEW EMERGENCY RESPONSE GUIDEBOOK (ERG) IS IN THE WORKS

By Suzon Larocque



The 2020 edition of the Emergency Response Guidebook (ERG) is in the works! We hope to have it released in the spring of 2020.

Canadian Transportation Emergency Centre (CANUTEC) and its partners are currently creating the 2020 edition of the ERG. The ERG is published every four years and is a collaboration between:

- CANUTEC
- the Pipeline and Hazardous Materials Safety Administration (PHMSA) of the United States Department of Transportation
- the Mexican Secretariat of Communications and Transportation
- the Chemistry Information Center for Emergencies of Argentina

In order to get user feedback and continue to improve the publication, CANUTEC and PHMSA have reached out to their stakeholders. To start the process, survey questions were developed by CANUTEC and PHMSA, and an online survey ran between November 2017 and March 2018. It was sent to the following associations to share with their members:

- Canadian Association of Fire Chiefs
- Canadian Association of the Chiefs of Police
- Paramedic Association of Canada
- Canadian Volunteer Fire Services Association

CANUTEC also published an article in the [Transportation of Dangerous Goods \(TDG\) Newsletter of August 2018](#) asking for feedback from TDG stakeholders. PHMSA published their survey in a Federal Register Notice issued in May 2018.

Along with these consultations, Transport Canada worked with its provincial and territorial counterparts and the first responder community to make sure that Canadian requirements would be well represented in the next edition of the ERG. For example, CANUTEC:

- gave the General Policy Advisory Council (GPAC) regular updates on the development of the guide
- presented details on upcoming changes to the Emergency Response subcommittee of the GPAC to get their input
- delivered several information sessions to first responders, including one at the Canadian Association of Fire Chiefs' annual conference
- continued to engage with first responders during the pilot of the new Flammable Liquids Training Curriculum
- participated in a ERG stakeholder meeting held in Washington, DC in June, hosted by PHMSA; the meeting looked at the methods used to decide the distances in the green pages of the ERG, for substances that are toxic by inhalation

In total, 194 comments have been received since the last edition of the ERG. 100 of these are being considered as improvements. A consensus has to be reached by all international partners before any proposed change is made to the ERG.

Here's an overview of the work being done and some changes that will be in the next edition of the guidebook:

- CANUTEC started a full review of the products listed in the dangerous goods index lists (yellow and blue-bordered pages), and PHMSA contracted subject matter experts with the National Fire Academy to complete a similar review and give recommendations
- An introductory page will be added to better explain how to use the safety recommendations and emergency response information guides (orange-bordered pages)

- The white pages will be easier to read and understand as they have been reviewed for plain language
- New sections will be added to the white pages, covering decontamination and Heat Induced Tears (HIT)
- The glossary will be expanded to include new terms and their definitions
- Following concerns from the emergency response community about the possible presence of dissolved hydrogen sulphide gas in petroleum crude oil (UN1267), a cautionary statement will be added in Guide 128 to reflect the concerns around inhalation toxicity
- The new lithium battery marking will be added
- In the green-bordered pages, there will be a visual tab to show differences between Tables 1, 2 and 3
- Better illustrations will appear in the rail car and road trailer identifications charts

The ERG is meant for transportation incidents, so the chemical, biological, radiological or nuclear warfare agent (CBRN) content has been reviewed to make sure that it's relevant. A one-question survey was sent to Canadian First Responders who indicated they wanted to keep this content. Due to this feedback and discussions with international partners, it was decided that the CBRN content will stay in the ERG2020. However, the chemical warfare agents in the numerical and alphabetical lists will not be assigned UN numbers as they are not commercially transported.

To make sure that the ERG2020 aligns with the latest editions of the *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*, out-of-date UN numbers will be removed and new ones will be added.

The publishing process is in its final stages. This will consist of editing the files, printing copies of the guidebook and sharing them. CANUTEC sends out the ERG through the provincial and territorial representatives that were identified for this. More information can be found in [CANUTEC's Distribution Policy](#).

Once the publication's released, communication materials will be developed and shared. These will include a training package on how to use the ERG, practice scenarios and a summary of the changes from the 2016 to the 2020 edition.

# PROTECTIVE DIRECTION 39 – PHASING OUT OLDER CRUDE OIL AND CONDENSATE TANK CARS

By Peter Coyles

Following the joint development of a new North American tank car specifically designed for the transport of flammable liquids by rail, Transport Canada, the US Pipeline and Hazardous Materials Safety Administration and the US Federal Railway Administration published the new TC/DOT 117 tank car standard.

The new harmonized tank car standard set construction requirements for a tank car carrying flammable liquids by rail. The standard prescribed a jacketed tank car design using thicker steel (14.3 mm) and thermal, top fitting and full head shield protection along with a new bottom outlet design.

The new harmonized standard also established retrofit requirements for all older legacy DOT 111 and CPC 1232 tank cars operating in North America as well as an aggressive phase-out schedule tied to industry new tank car production and retrofit capacity.

In August 2018, the Minister of Transport issued Protective Direction (PD) 39. PD 39 accelerated the phase-out of older tank cars. Unjacketed CPC 1232 tank cars were removed from crude oil service on November 1, 2018, instead of April 2020 as originally scheduled. PD 39 also removed all legacy DOT 111 tank cars and unjacketed CPC 1232 tank cars in condensate service (condensate used to mix into crude oil to enable flow in a pipeline or tank car) on January 1, 2019, which was originally scheduled for April 2025.

Before PD 39 came into force, we consulted with stakeholders from industry, key oil and gas associations, tank car manufacturers and railway suppliers, railway operators and first responders. PD 39 built on an earlier tank car phase-out schedule, which removed all legacy DOT 111 tank cars from crude oil service by November 1, 2016 ([for more information, see PD 38](#)).

As a result of these accelerations, crude oil and condensates are now being transported in Canada using the strongest tank cars available. We continue to closely monitor the tank car phase-out schedule to verify compliance with the regulatory requirements and see if timelines can be accelerated in the future.

## A Safety Advisory Notice from the Pipeline and Hazardous Materials Safety Administration (PHMSA)

PHMSA has issued a safety advisory notice to inform the public, industrial gas stakeholders, and relevant government officials of the risks associated with requalifying, filling, and transporting cylinders bearing the DOT specification markings "DOT 4E" or "DOT 4BA" that were produced by a company located in Thailand by the name of Metal Mate. Metal Mate does not have an approval from PHMSA to manufacture cylinders to DOT specifications; therefore, cylinders marked with the Metal Mate name are not DOT specification cylinders. They must not be used to transport hazardous materials in commerce to, from, or within the United States, or on a United States-registered aircraft. These cylinders may not perform to the marked DOT performance standard and may not be safe for commercial transportation or consumer use. [Quoted from link below]

For more information, please visit:

<https://www.federalregister.gov/documents/2019/11/01/2019-23878/hazardous-materials-unapproved-foreign-made-dot-cylinders>



# TRANSPORT CANADA STANDARD TP 14877

By Wali Sagaf

Containers for Transport of Dangerous Goods by Rail, January 2018 (TP 14877) covers large means of containment used in the handling, offering for transport and transport of dangerous goods by rail.

The updated standard came into force on July 2, 2019. It has been merged with the regulations that changed

the *Transportation of Dangerous Goods Regulations* (Containers for Transport of Dangerous Goods by Rail).

[The regulatory amendment can be found in the Canada Gazette, Part II, and the safety standard can be found on the TC website.](#)

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## CANADA-US ENFORCEMENT OPERATION PILOT PROJECT

By Daniel Keenan-Pelletier



A successful joint task force between the Royal Canadian Mounted Police, Transport Canada's Marine Safety Directorate and the Transportation of Dangerous Goods' (TDG) Directorate in 2017 sparked interest in finding other opportunities for inter-agency cooperation. As a result, a pilot project between the United States' (US) Pipeline and Hazardous Materials

Safety Administration (PHMSA) and the TDG Directorate was created, in the hopes of improving the coordination of enforcement activities that involve the transportation of dangerous goods across international borders.

The 2017 pilot project dealt with issues around the transportation of dangerous goods, and aimed to improve cooperation and communication between the US and Canada. The project also helped demonstrate agency abilities and laid the groundwork for similar work in the future.

Federal, provincial/state law enforcement and regulatory agencies completed an enforcement blitz at the Ontario-Michigan border from September 25 to 27, 2018. Both TDG and PHMSA had three teams of inspectors in place to check dangerous goods imports by road and rail. These inspections included a review of shipping documents, training certificates, means of containment and other legal requirements, to make sure that vehicles complied with both Canadian and American regulations.

The 2018 TC/PHMSA border operation was deemed a success and it was agreed by all that we would continue this practice. The 2019 Multi-Agency Strike Force Operation (MASFO) took place September 10th to 12th at the Niagara, Fort Erie, Sarnia (rail and road) and Sault Ste. Marie crossings on the Canadian side, with our US counterparts operating on their side of the border. Our US colleagues also conducted the operation at the Windsor-Detroit ferry, where they targeted in and outbound dangerous goods movements. This is an excellent example of the high



level of collaboration enjoyed by our organizations and we look forward to conducting future operations, and possibly expanding the focus to other areas along the border.

All agencies worked together to identify and stop violations. Issues identified during the blitz were documented and issues of non-compliance were immediately dealt with. The information gathered will help identify locations for future dangerous goods inspections. The data collected will also help improve future targeted enforcement activities.

Future collaborations between the TDG Directorate and PHMSA will continue.

### Non-compliance to Part 3 – Documentation

Did you know that not complying with Part 3 (Documentation) of the *Transportation of Dangerous Goods Regulations* was the most common enforcement issue in 2018? It made up 36% of the 2018 enforcement issues.

Both the shipping document and its order must include a description of the dangerous goods present.

These can be easily dealt with by checking [Information on a Shipping Document](#).

More information can be found in the [TDG Bulletin – Shipping Documents](#) from March 2018.

## USING TRANSCAER® FOR RAISING AWARENESS OF RAIL INCIDENTS THAT INVOLVE DANGEROUS GOODS

By Marc-Olivier Boudreau



The Emergency Response Task Force released its final report in July 2016. The Task Force was created following the tragic rail incident in Lac-Mégantic, Quebec. Their report included 40 recommendations to improve emergency response, preparedness and training.

In the spirit of these recommendations, remedial measures specialists from the Quebec Region are working with Canadian National (CN) and the Railway Association of Canada (RAC) to share best response practices with first responders when responding to rail incidents that involve dangerous goods.


Training and information sessions are being offered through the Transportation Community Awareness and Emergency Response (TRANSCAER) initiative. Sessions cover topics like rail safety systems, incident

reporting, safety for emergency responders, how to identify dangerous goods involved in an accident, the use of the train consist, the AskRail® application and uniting stakeholders under an Incident Command System (ICS).

Remedial measures specialists also talk about the Emergency Response Assistance Plan (ERAP) program and explain the implementation of an ERAP, industry resources and the roles that technical advisors and Transport Canada play at the site of an incident. Previous incident responses are given as examples. First responders also get the chance to become more familiar with the Emergency Response Guidebook.

In 2018, the Canadian rail industry organized 260 training sessions for over 5,000 participants. 28 sessions were held in Quebec alone, training over 775 participants. This initiative helps us share information and build our networks; it's a service that fire departments appreciate.

These sessions create ties between stakeholders and clarify their roles under a unified ICS. More sessions are [scheduled across Canada](#) for 2020.



### Transporting Class 3 flammable liquid aqueous solutions of alcohol – methanol exemption

The transportation industry asked Transport Canada to provide clarity on the application of Paragraph 1.36 (b) of the *Transportation of Dangerous Goods Regulations (TDG Regulations)*, with regards to methanol.

Paragraph 1.36 (b) does not apply to aqueous solutions of alcohol that have a subsidiary class, except for Methanol (UN1230). Despite this exception, an aqueous solution that contains methanol must still meet all other requirements of Paragraph 1.36 (b) of the *TDG Regulations*.

## TDG RESEARCH SYMPOSIUM

By Amy Park

The Transportation of Dangerous Goods (TDG) Directorate held a TDG Research Symposium in Ottawa from February 27 to 28, 2019. The symposium was held to consult with stakeholders on TDG research ideas and to help identify gaps in current TDG research.

In his opening remarks, Benoit Turcotte, Director General of TDG, highlighted Transport Canada's (TC) on-going commitment to the safe transportation of dangerous goods across all modes. He also emphasized the importance of research in developing evidence-based recommendations to support TDG program initiatives including policy and regulatory development.

The TDG Directorate is looking at short- to medium-term research priorities for the next five (5) years. Consulting with stakeholders is vital to setting research priorities and exploring opportunities to collaborate and leverage funding. The symposium was an opportunity for the Directorate and stakeholders to present and give feedback on research ideas.

The goal was for presentations and discussions at the symposium to explore innovative areas of research and to consider expanded scopes of on-going

research, possibly by collaborating with or building on research with domestic and international partners.

There were 23 presentations on research ideas or gaps in these six (6) topic areas:

- Large means of containment
- Small means of containment
- Lithium batteries and other energy storage systems
- Tools for oversight or emergency response
- Emerging issues and disruptive technologies
- Risk assessment and risk analysis

There were also opportunities to discuss and brainstorm on these presentations and general topic areas, as well as other research topics from the audience.

Over 200 people signed up to attend the symposium. The venue was at capacity, with 122 registered to participate in person. There was also an option for remote participation, with video live streaming and call-in capability for the question and discussion portions of the symposium – 79 individuals and groups registered to participate remotely. Participants were from across Canada, as well as the United States (US) and Asia. These included representatives from:

- industry and associations
- first responders and emergency responders
- TDG standards committees
- academia and research institutions
- provincial, territorial and municipal stakeholders
- federal partners, including:
  - » Natural Resources Canada
  - » National Research Council Canada
  - » Public Health Agency of Canada
  - » Department of National Defence
  - » Defence Research and Development Canada
- the US Department of Transportation
- TDG Directorate and other TC groups, including:
  - » Rail Safety
  - » Marine Safety and Security
  - » Surface and Inter-Modal Security Policy
  - » Innovation Centre
  - » Economic Analysis
  - » TC Transformation
  - » Digital Services

Following the symposium, research ideas have been gathered from:

- presentations and discussion sessions at the symposium
- other presentation proposals submitted for the symposium
- comments and emails submitted to the Directorate after the symposium

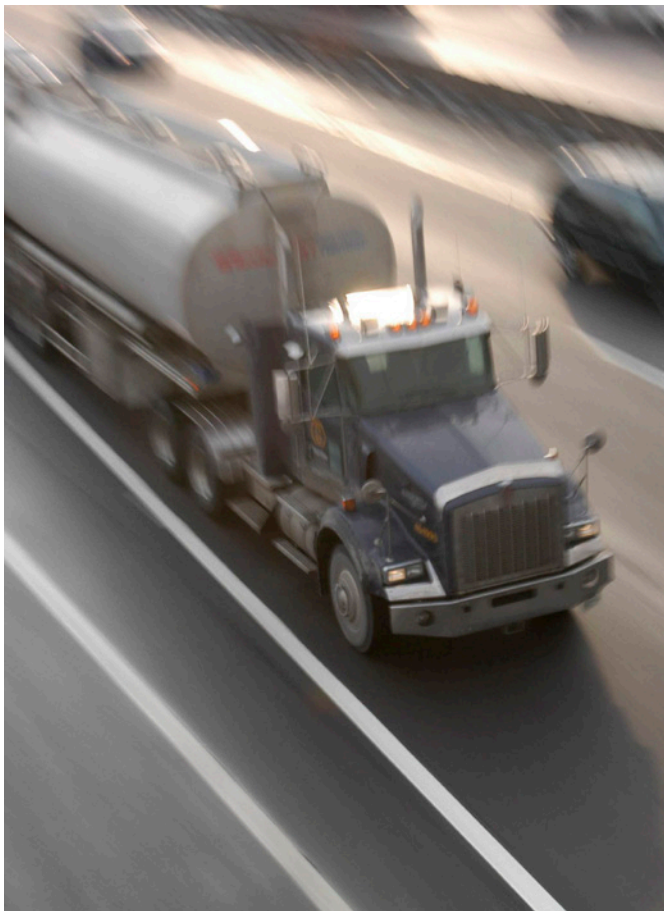
These research ideas are being reviewed, and a research plan and research priorities are being developed. Next steps may include a peer review process involving stakeholders to help prioritize or select research projects. Opportunities may be explored to leverage research funding through collaborations and partnerships.

The TDG Directorate delivers a wide range of research, including scientific, engineering,

risk, geographic information systems (GIS) and commodity flow, and socio-economic research. Indicative of the importance of research to the TDG program, Paragraph 25(a) of the *Transportation of Dangerous Goods Act, 1992* authorizes the Minister of Transport to “conduct, alone or in cooperation with any government, agency, body, or person, whether Canadian or not, programs of technical research and investigation into the development and improvement of safety marks, safety requirements, safety standards, and regulations under this Act and coordinate the programs with similar programs undertaken in Canada.”

## CHANGES COMING SOON TO HIGHWAY AND TC PORTABLE TANK STANDARDS

By Chris Nowak



### CSA B620, CSA B621 and CSA B622

All highway tanks transporting bulk dangerous goods in Canada must be designed, built, repaired and serviced according to the *Transport of Dangerous Goods Regulations (TDG Regulations)*. The *TDG Regulations* reference CSA B620, B621 and B622 safety standards which contain the requirements for all TC highway tanks and TC portable tanks transporting dangerous goods.

In order to manufacture, assemble, modify, repair, inspect and test a TC specification highway tank for dangerous goods transport, a person must register with Transport Canada according to CSA B620.

The Canadian Standards Association (CSA) is finishing the next editions of the CSA B620, CSA B621 and CSA B622 standards. They will be published in early 2020. These editions include many changes that will be introduced in early 2020. You can choose to follow the new rules once these standards are published, but will have to follow the new rules 6 months after the publication date.

Here are some of the most important changes to the standards:

### CSA B620-20 – Highway tanks and TC portable tanks for the transportation of dangerous goods

- Updated American Society of Mechanical Engineers (ASME) code now dynamically referenced to the latest edition of the ASME code, allowing one to use the latest version of the ASME code as soon as it is published
- New training organization registration for qualification of tank inspectors and testers
- Updated tank inspector and tester training and qualification requirements
- Updated tank securement requirements for all highway tanks
- Updated damage protection requirements for TC 331, TC 338 and TC 341 tanks
- 10-year internal inspection and pressure test frequency allowed for some smaller tanks in dedicated propane service with a maximum capacity of 13250L
- New pressure gauge selection and calibration requirements for pressure tests
- Updated thickness testing requirements
- Updated pressure testing requirements
- Updated inspection and test reporting requirements
- Reintroduction of TC 51 portable tanks, with updated requirements
- Updated insulation requirements for TC 423 tanks

### CSA B621-20 – Selection and use of highway tanks, TC portable tanks, and other large containers for the transportation of dangerous goods, Classes 3, 4, 5, 6.1, 8, and 9

- Non-rectangular TC 44 tanks are no longer limited to diesel fuel and are allowed to transport other dangerous goods, similar to TC 406 and equivalent tanks
- Updated requirements for tanks with an intermediate bulkhead
- Emergency shutoff marking requirements for manually-activated remote shutoff device
- Minimum two chock blocks are required when using chock blocks to prevent unintended vehicle movement
- Updated dangerous goods table arranged by UN number

### CSA B622-20 – Selection and use of highway tanks, TC portable tanks, and ton containers for the transportation of dangerous goods, Class 2

- Updated emergency discharge control of tanks in compressed liquefied gas service (not including Class 2.2)
- Updated nurse tank and nurse tank piping requirements for the agricultural industry
- Emergency shutoff marking requirements for manually-activated remote shutoff device
- Portable tanks loaded with dangerous goods while on vehicles have to have tank securement designed by Professional Engineer
- Minimum two chock blocks are required when using chock blocks to prevent unintended vehicle movement
- Updated dangerous goods table arranged by UN number

Note that compliance with the *TDG Regulations* when transporting dangerous goods is mandatory, and that failure to comply with the *TDG Regulations* may result in revocation of any TC registrations and could include fines or prosecution for those responsible. This applies to TC registered Means of Containment (MOC) facilities as well as individuals and companies transporting dangerous goods in Canada.

TC registered MOC facilities that are found to have not followed the *TDG Regulations* in their operations may be issued a direction by the Minister, also known as a notice of defective construction or recall, or a notice to issue a notice of defective repair or defective testing, for any and all MOC that were not constructed or serviced per the requirements in the safety standards. Other enforcement actions may be applicable as well.

Public safety is everyone's responsibility, and the TDG Directorate is always willing to work with you to help you follow the *TDG Regulations*. We have regional offices across Canada, with expert inspectors who are always willing to help. You can also talk to TDG Headquarters in Ottawa by email or phone for dangerous goods related questions.

You can find our [contact information on the TC website](#), and while you're there check out [FAQ on Highway Tanks \(tank trucks\) and TC Portable tanks](#).

If you have questions about dangerous goods, talk to our TDG team. Our dedicated [registration team](#)



takes care of registration related emails, and our [team of engineers](#) can answer technical questions about container types.

Our goal is to make sure that the transport of dangerous goods across Canada is safe and secure for all.

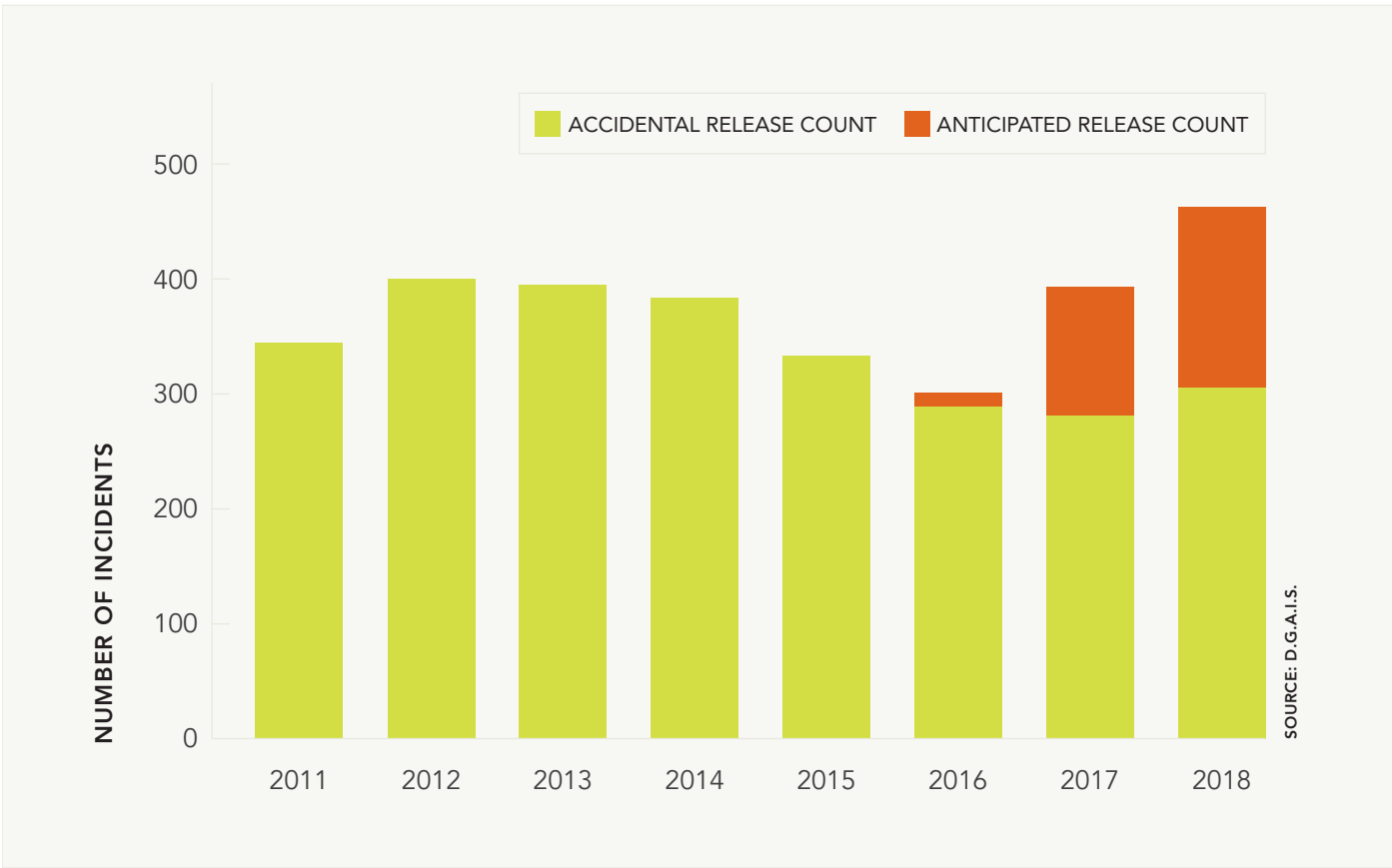
# REPORTABLE INCIDENTS ACROSS CANADA FROM 2011 TO 2018

By Jonathan Rose, Patricia Danochristos, Benoît Nosworthy, Khoa Joseph Vo

This report shows statistics and samples of two kinds of incidents from 2011–2018:

- Incidents with a release of dangerous goods
- Incidents with an anticipated release of dangerous goods

## Number of Reported Incidents, 2011–2018



Please note, the collection of anticipated release data only began in December 2016



## 2018 HIGHLIGHTS:

**Note:** This data was last updated June 21, 2019.

- 464 reportable incidents in Canada

TOP FIVE DANGEROUS GOODS PRODUCTS INVOLVED IN REPORTABLE INCIDENTS	PERCENTAGE
Petroleum Crude Oil – Class 3	24.78%
Liquefied Petroleum Gases; or Petroleum Gases, Liquefied – Class 2.1	9.27%
Diesel Fuel; Gas Oil; or Heating Oil Light – Class 3	8.41%
Gasoline; Motor Spirit; or Petrol – Class 3	4.96%
Hydrochloric Acid – Class 8	3.88%

- Class 8 Corrosive
  - » Hydrochloric Acid, ranked 5<sup>th</sup>
  - » Corrosive Liquids N.O.S., ranked 8<sup>th</sup>
  - » Sulphuric Acid, ranked 9<sup>th</sup>
  - » Sodium Hydroxide, ranked 11<sup>th</sup>
- 63% of the incidents happened during transit, and 37% during handling (loading, unloading, and temporary storage)
- 67.24% of the incidents were moderately serious
  - » The severity of incidents is based on 10 true or false questions. One point is given for each “true” response. The total points give the severity level:

TOTAL POINTS	SEVERITY LEVEL
0 to 1	Minor
2 to 3	Moderate
4 to 5	Major
6 to 7	Severe
8 to 10	Catastrophic

## Reporting the release or anticipated release of dangerous goods and container specifications

[Find out about reporting requirements.](#)

[Access the guide for reporting dangerous goods incidents.](#)

Read the following article from our August 2018 issue: [30-Day Follow-up Reporting Process](#).

Please submit your [30-day follow-up report form](#) and [container specification form](#) to the Minister within 30 days of the release or anticipated release for a dangerous goods accident in road, rail or marine modes. For a dangerous goods accident for the air mode, report to CANUTEC.

Send completed reports to Transport Canada by e-mail, fax or mail:

- E-mail: [dor-rcd@tc.gc.ca](mailto:dor-rcd@tc.gc.ca) or [rcd-dor@tc.gc.ca](mailto:rcd-dor@tc.gc.ca)
- Fax: 613-991-2917
- Mail: Transportation of Dangerous Goods (TDG)  
L'Esplanade Laurier, 15th Floor  
300 Laurier Avenue West



## RETIREMENT NEWS – JONATHAN ROSE



After more than 35 years devoted to the Transportation of Dangerous Goods Program, Jonathan Rose retired at the end of 2019. As an Economic Analyst, Jonathan was responsible for collecting and analyzing the 30-day Follow-Up Reports. His retirement marks the end of an era within TDG. He's well known for creating and maintaining the Dangerous Goods Accident Information System, which was quite progressive for our program risk assessments.

Over the years, Jonathan made sure that accurate dangerous goods statistics were available to the public through Statistic Canada's website. He also supplied information and replied to requests from industry, industry associations and TDG inspectors on targeted dangerous goods incidents.

Jonathan – thank you for your dedicated service. We all wish you a healthy, and well-deserved retirement.