TRANSPORT DANGEROUS GOODS
NEWSLETTER

INSIDE
EDITORIAL
3
TDG Congress II – Another Successful Event!
3
THE ENFORCEMENT CORNER
4
Emergency Response Assistance Plan – Potential Accident Assessment
6
Accident Summary Report 2004
9
How Many Trucks Actually Transport Dangerous Goods Consignments?
11
Inspection and Test of Portable Refuelling Tanks
12
Transport Dangerous Goods Inspectors’ Workshop
13
New Editions of CSA Standards on Gas Containers
14
NOTICE – Carriage of Ammunition on Board an Aircraft
15
CANUTEC Stats
16

TP 2711 E
05/2005

Spring 2005

Canada
The Dangerous Goods Newsletter is published three times yearly in both official languages by the Transport Dangerous Goods Directorate, Transport Canada, and is distributed to government and industry organizations in fields related to dangerous goods. Subscriptions are free of charge and available to anyone on request by calling 613 998-1834 or by visiting the TDG website at <http://www.tc.gc.ca/tdg/newsletter/menu.htm> and clicking on REQUEST. This newsletter is also available at the same internet address. Please address comments and inquiries regarding additional information or publications to:

The Editor,
Dangerous Goods Newsletter
Transport Dangerous Goods
Transport Canada
Ottawa, Ontario, Canada
K1A 0N5

Editor
Renee Major
majorr@tc.gc.ca

Graphics and Design
Yvan Meloche
melochy@tc.gc.ca

John A. Read
- Director General, TDG Directorate
Stéphane Garneau
- Regulatory Affairs Branch, TDG Directorate
Jonathan Rose
- Research, Evaluation and Systems Branch, TDG Directorate
Susan Williams
- Research, Evaluation and Systems Branch, TDG Directorate
Nathalie Belliveau - Compliance and Response Branch, TDG Directorate
Nicole Noccey - Regulatory Affairs Branch, TDG Directorate
Pascal Verville - Regulatory Affairs Branch, TDG Directorate
Zenan Lewczyk - Regulatory Affairs Branch, TDG Directorate
Michel K. Vitou - Compliance and Response Branch, TDG Directorate
Renee Major - Research, Evaluation and Systems Branch, TDG Directorate
Eve Poirier - Remedial Measures Specialist, Quebec Region

Effective immediately, subscribers to the Dangerous Goods Newsletter are able to make their own changes to the TDG mailing list by visiting the TDG website at: <http://www.tc.gc.ca/tdg/newsletter/menu.htm> and clicking on REQUEST. This newsletter is also available at the same internet address. Please address comments and inquiries regarding additional information or publications to:

The Editor,
Dangerous Goods Newsletter
Transport Dangerous Goods
Transport Canada
Ottawa, Ontario, Canada
K1A 0N5

Editor
Renee Major
majorr@tc.gc.ca

Graphics and Design
Yvan Meloche
melochy@tc.gc.ca

John A. Read
- Director General, TDG Directorate
Stéphane Garneau
- Regulatory Affairs Branch, TDG Directorate
Jonathan Rose
- Research, Evaluation and Systems Branch, TDG Directorate
Susan Williams
- Research, Evaluation and Systems Branch, TDG Directorate
Nathalie Belliveau - Compliance and Response Branch, TDG Directorate
Nicole Noccey - Regulatory Affairs Branch, TDG Directorate
Pascal Verville - Regulatory Affairs Branch, TDG Directorate
Zenan Lewczyk - Regulatory Affairs Branch, TDG Directorate
Michel K. Vitou - Compliance and Response Branch, TDG Directorate
Renee Major - Research, Evaluation and Systems Branch, TDG Directorate
Eve Poirier - Remedial Measures Specialist, Quebec Region

Effective immediately, subscribers to the Dangerous Goods Newsletter are able to make their own changes to the TDG mailing list by visiting the TDG website at: <http://www.tc.gc.ca/tdg/newsletter/menu.htm> and clicking on REQUEST. This newsletter is also available at the same internet address. Please address comments and inquiries regarding additional information or publications to:

The Editor,
Dangerous Goods Newsletter
Transport Dangerous Goods
Transport Canada
Ottawa, Ontario, Canada
K1A 0N5

Editor
Renee Major
majorr@tc.gc.ca

Graphics and Design
Yvan Meloche
melochy@tc.gc.ca

John A. Read
- Director General, TDG Directorate
Stéphane Garneau
- Regulatory Affairs Branch, TDG Directorate
Jonathan Rose
- Research, Evaluation and Systems Branch, TDG Directorate
Susan Williams
- Research, Evaluation and Systems Branch, TDG Directorate
Nathalie Belliveau - Compliance and Response Branch, TDG Directorate
Nicole Noccey - Regulatory Affairs Branch, TDG Directorate
Pascal Verville - Regulatory Affairs Branch, TDG Directorate
Zenan Lewczyk - Regulatory Affairs Branch, TDG Directorate
Michel K. Vitou - Compliance and Response Branch, TDG Directorate
Renee Major - Research, Evaluation and Systems Branch, TDG Directorate
Eve Poirier - Remedial Measures Specialist, Quebec Region

Effective immediately, subscribers to the Dangerous Goods Newsletter are able to make their own changes to the TDG mailing list by visiting the TDG website at: <http://www.tc.gc.ca/tdg/newsletter/menu.htm> and clicking on REQUEST. This newsletter is also available at the same internet address. Please address comments and inquiries regarding additional information or publications to:

The Editor,
Dangerous Goods Newsletter
Transport Dangerous Goods
Transport Canada
Ottawa, Ontario, Canada
K1A 0N5

Editor
Renee Major
majorr@tc.gc.ca

Graphics and Design
Yvan Meloche
melochy@tc.gc.ca

John A. Read
- Director General, TDG Directorate
Stéphane Garneau
- Regulatory Affairs Branch, TDG Directorate
Jonathan Rose
- Research, Evaluation and Systems Branch, TDG Directorate
Susan Williams
- Research, Evaluation and Systems Branch, TDG Directorate
Nathalie Belliveau - Compliance and Response Branch, TDG Directorate
Nicole Noccey - Regulatory Affairs Branch, TDG Directorate
Pascal Verville - Regulatory Affairs Branch, TDG Directorate
Zenan Lewczyk - Regulatory Affairs Branch, TDG Directorate
Michel K. Vitou - Compliance and Response Branch, TDG Directorate
Renee Major - Research, Evaluation and Systems Branch, TDG Directorate
Eve Poirier - Remedial Measures Specialist, Quebec Region

Effective immediately, subscribers to the Dangerous Goods Newsletter are able to make their own changes to the TDG mailing list by visiting the TDG website at: <http://www.tc.gc.ca/tdg/newsletter/menu.htm> and clicking on REQUEST. This newsletter is also available at the same internet address. Please address comments and inquiries regarding additional information or publications to:

The Editor,
Dangerous Goods Newsletter
Transport Dangerous Goods
Transport Canada
Ottawa, Ontario, Canada
K1A 0N5

Editor
Renee Major
majorr@tc.gc.ca

Graphics and Design
Yvan Meloche
melochy@tc.gc.ca

John A. Read
- Director General, TDG Directorate
Stéphane Garneau
- Regulatory Affairs Branch, TDG Directorate
Jonathan Rose
- Research, Evaluation and Systems Branch, TDG Directorate
Susan Williams
- Research, Evaluation and Systems Branch, TDG Directorate
Nathalie Belliveau - Compliance and Response Branch, TDG Directorate
Nicole Noccey - Regulatory Affairs Branch, TDG Directorate
Pascal Verville - Regulatory Affairs Branch, TDG Directorate
Zenan Lewczyk - Regulatory Affairs Branch, TDG Directorate
Michel K. Vitou - Compliance and Response Branch, TDG Directorate
Renee Major - Research, Evaluation and Systems Branch, TDG Directorate
Eve Poirier - Remedial Measures Specialist, Quebec Region

Effective immediately, subscribers to the Dangerous Goods Newsletter are able to make their own changes to the TDG mailing list by visiting the TDG website at: <http://www.tc.gc.ca/tdg/newsletter/menu.htm> and clicking on REQUEST. This newsletter is also available at the same internet address. Please address comments and inquiries regarding additional information or publications to:

The Editor,
Dangerous Goods Newsletter
Transport Dangerous Goods
Transport Canada
Ottawa, Ontario, Canada
K1A 0N5

Editor
Renee Major
majorr@tc.gc.ca

Graphics and Design
Yvan Meloche
melochy@tc.gc.ca

John A. Read
- Director General, TDG Directorate
Stéphane Garneau
- Regulatory Affairs Branch, TDG Directorate
Jonathan Rose
- Research, Evaluation and Systems Branch, TDG Directorate
Susan Williams
- Research, Evaluation and Systems Branch, TDG Directorate
Nathalie Belliveau - Compliance and Response Branch, TDG Directorate
Nicole Noccey - Regulatory Affairs Branch, TDG Directorate
Pascal Verville - Regulatory Affairs Branch, TDG Directorate
Zenan Lewczyk - Regulatory Affairs Branch, TDG Directorate
Michel K. Vitou - Compliance and Response Branch, TDG Directorate
Renee Major - Research, Evaluation and Systems Branch, TDG Directorate
Eve Poirier - Remedial Measures Specialist, Quebec Region

We welcome news, comments or highlights of transportation of dangerous goods activities, announcements of meetings, conferences or workshops. The Newsletter carries signed articles from various sources. Such articles do not necessarily represent the views of the Directorate, nor does publishing them imply any endorsement. Material from the Newsletter may be used freely with customary credit.
Editorial

Welcome to the Spring 2005 edition of the newsletter. As you will see, we have included many interesting articles in this issue regarding the transportation of dangerous goods program.

Our feature article on page 4 describes three new initiatives which will be introduced in the coming months by the Enforcement community. On page 6, you will find an article on the potential accident assessment - a new requirement to the Emergency Response Assistance Plan since the Clear Language Regulations came into force. As well, we have included on page 9 the Accident Summary Report for 2004 which gives an overview of the reporting requirements and the collection of outstanding 30-Day Follow-up Reports. There is also an informative article on page 14 concerning the revised editions of CSA standards on gas containers which will come into force with the fourth amendment to the Transportation of Dangerous Goods Regulations.

If you are wondering how the review of the TDG Act is progressing, I invite you to visit the TDG website at: http://www.tc.gc.ca/tdg/menu.htm for regular updates, as we prepare for our submission to Cabinet. As always, I invite you to send me your comments and suggestions on these articles or future articles you would like to see included. I look forward to hearing from our readers.

Enjoy your reading!

Renee Major

TDG Congress II – Another Successful Event!

by Renee Major

Once again, the Canadian Chemical Producers' Association in cooperation with Transport Canada (TDG Directorate) hosted a TDG information and discussion seminar. The event was held at the Marriott Hotel in Ottawa on November 8 and 9, 2004. The congress attracted over 200 participants representing various Canadian industries, institutions, federal, provincial, territorial and municipal governments as well as UN representatives.

Based on the theme "What have we learned? Where are we going?" the congress focused on lessons learned by both government and industry since the new Clear Language Regulations were introduced in August 2002 and looked at future regulatory activities in both domestic and international legislation.

The Honourable Jim Karygiannis, Parliamentary Secretary to the Minister of Transport, welcomed the delegates and recognized the valuable partnership that exists between industry and government in promoting the safe transportation of dangerous goods. He elaborated on the review of the Transportation of Dangerous Goods Act that is currently underway and explained that following the events of September 11th, 2001 the need to review the Act from a security standpoint was even greater. He invited the delegates to submit comments on ways to improve the Act.

Mr. Richard Paton, President of the Canadian Chemical Producers' Association (CCPA) also welcomed the participants and acknowledged the years of cooperation between CCPA and Transport Canada in ensuring the safe and reliable transportation of dangerous goods. He mentioned the importance of this congress as it marks the 25th anniversary of the Mississauga Derailment where nearly 250,000 residents in southern Ontario were evacuated after a cargo train came off the track and leaked large quantities of chlorine, styrene, and propane in the vicinity. Since then, the CCPA developed Responsible Care®, an ethic for the chemical industry that commits chemical producers to continuous improvement in health, safety and the environment.

The agenda included plenary sessions and a series of workshops covering such topics as: proposed amendments to the regulations, means of containment standards, emergency planning and response, the review of the TDG Act, the new Emergency Response Guidebook 2004, hazardous waste and the cross-border movement of dangerous goods.

Presentations were also made on international issues affecting the transportation of dangerous goods program and the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS) as well as the effect that GHS implementation in Canada will have on the Workplace Hazardous Materials Information System (WHMIS).

Overall, the delegates were pleased with the two-day event in Ottawa and are looking forward to the next TDG Congress in 2007.
The Enforcement community has been very busy in the last six months and has initiated three new projects:

1) the implementation of a ticketing initiative under the Contraventions Act;
2) the posting of prosecutions of interest on the Transport Dangerous Goods (TDG) website;
3) the issuance of credentials to the multi-modal TDG inspectors.

Canadians expect their government to provide laws and regulations to protect them and ensure their safety and security. However it is not enough to simply adopt laws, they must be effectively and practically enforced. To enforce the TDG Act and ensure compliance, TDG inspectors will use rules, sanctions and processes securely founded in the law.

TDG inspectors designated pursuant to subsection 10(1) of the Transportation of Dangerous Goods Act, 1992 (hereafter the TDG Act), have various powers and enforcement tools they may use to ensure compliance. While each situation may differ, the most important factor in determining an enforcement response is the effectiveness of the response in securing compliance with no reoccurrence of the violations.

Therefore, except where prosecutions will always be pursued, the inspector has the discretion and the authority to use any of the following enforcement actions:

- inspection reports;
- detention;
- directions pursuant to subsections 17(1)(2)(3), and 19(2) of the TDG Act and
- summary or indictable conviction process, section 33 of the TDG Act.

A new mechanism

Currently, TDG inspectors cannot issue a contravention or “ticket” to enforce non-compliance of the TDG Act or the Transportation of Dangerous Goods Regulations.

Therefore, the Transport Dangerous Goods Directorate has taken a new initiative and is now in the process of drafting a series of “ticketable” offences. The provisions of the Contraventions Act will allow the TDG inspectors to implement an adequate and fair ticketing program. There are approximately eighteen Statutes with regulations under the Contraventions Act that provide for ticketable offences. Seven of those Statutes are under the responsibility of the Minister of Transport.

- Canada Marine Act (and four regulations)
- Canada Shipping Act (and six regulations)
- Department of Transport Act (Historic Canal Regulation)
- Railway Safety Act
- Saguenay-St-Laurence Marine Park Act
- Motor Vehicle Transport Act
- Navigable Waters Protection Act

1) IMPLEMENTING OF A TICKETING INITIATIVE AND HOW IT WORKS

In October 1992, Parliament passed the Contraventions Act to establish an alternative to the summary conviction process set out in Part XXVII of the Criminal Code for prosecuting certain federal offences. The Act provides that an enforcement authority may issue a ticket to lay information for a federal offence designated as a contravention by regulation. Accordingly, it gives enforcement authorities a new tool to better enforce the law. This simplified procedure also has the advantage of “dejudicializing” a large number of prosecutions. In addition, it allows offenders to avoid having to appear in cases that are not contested and spares them the legal consequences of a conviction under the Criminal Code. Finally, this procedure reduces costs for the government, the courts and the citizens.

Briefly, the provisions of the Statute simply state that offences committed within the provinces where an agreement with the provinces has been entered into will

1 “Enforcement authority” means, in respect of a contravention:
(a) any police officer or constable, including a special or auxiliary constable,
(b) the minister responsible for administering the enactment creating the contravention,
(c) any person, or number of a class of persons, designated by the minister responsible for administering the enactment creating the contravention, or
(d) the corporation or other body that made or is responsible for administering the enactment creating the contravention.
be dealt with in accordance with the provincial ticketing system. This includes using provincial tickets and having them processed within the provincial system.

Designation of offences

One of the fundamental provisions of the contraventions regime is found in subsection 8(1) of the Contraventions Act. This subsection gives the Governor in Council the authority to make regulations for the purpose of:

(a) designating as contraventions offences created by any enactment, other than offences for which an offender may be prosecuted only on indictment;
(b) establishing shortform descriptions of contraventions;
(c) establishing, in respect of a contravention, an amount as the amount of the fine for the purposes of proceedings commenced by means of a ticket.

Thus only federal offences designated as contraventions by the Governor in Council can be prosecuted by means of a ticket issued in accordance with the Act. It should be noted that the word “enactment” in paragraph (a) means “any Act of Parliament or any regulation, rule, order, by-law or ordinance made under an Act of Parliament”. To date, approximately 1,800 offences under federal laws and regulations have been designated as contraventions. The Contraventions Regulations, which were made under subsection 8(1) of the Contraventions Act, designate as contraventions various federal offences and include a short-form description and establish the amount of the fine for each one.

Criteria for selecting federal offences

The Contraventions Act will delineate exact offences, associated fines and procedures for ticketing. TDG offences have not yet been added to Schedule I of the Contraventions Act. Where an offence is designated as “ticketable”, inspectors may issue a ticket in accordance with “Ticketing Policy and Procedures” unless they have determined that, in accordance with the factors and criteria set out in this policy, another response is more appropriate, i.e. ticket(s) have been issued in the past and it is unlikely that another ticket will have any effect.

Previously, all enforcement information related to companies was available to the public only after a specific request was made under the Access to Information Act. That process was considered cumbersome and it did not achieve fair and consistent treatment for all affected parties, as not all information on offenders ended up widely disseminated in the public domain. This new policy will allow for consistent and equitable treatment of corporate offenders by making all cases of interest public.

The information published on this site will be updated regularly and will remain posted for twelve months. Because of the various delays inherent with the
Criminal Court processes, you may see the date of a published violation posted twelve to eighteen months after the offence.

It should also be noted that only offences for which a corporate entity is charged will be posted on the website. This means that when a court decision is rendered against an employee of a corporation, the information will not be published.

For the 2004/2005 fiscal year, seventeen investigations have been initiated, sixteen of which have resulted in charges being laid before the courts of jurisdiction. Additionally, thirty-one Notices of Detentions have been issued where non-compliance was discovered.

3) ISSUANCE OF CREDENTIALS TO TDG INSPECTORS

The official certificate of designation card identifies the inspector and his authority to exercise certain powers or perform certain duties with regards to the TDG Act, as delegated by the Minister. The Inspector’s official designation card is proof of someone’s authority, and not simply an identification card.

Recently, TDG inspectors designated pursuant to subsection 10(1) of the TDG Act, for all purposes, all classes of dangerous goods, all means of transport, and all buildings and places, and inspectors designated for all means of containment, for all classes of dangerous goods, on all means of transport, and in all buildings and place have been issued an official Transport Canada Inspector’s badge bearing the 5000 series, a series specifically allocated to TDG Inspectors.

These badges are authorized by the Deputy Minister of Transport Canada and are issued under the authority of the Director, Compliance and Response Branch of the TDG Directorate and will only be used in the administration of the TDG Act. The Chief of Enforcement is responsible for the overall credential program.

The badge itself does not confer any additional authority or powers to inspectors. It is considered to be an additional tool to help identify the inspector as a person in authority, as the badge has come to be an international symbol of a person with enforcement authorities.

If you have any comments or suggestions, please contact Michel K. Vitou, Chief of Enforcement, at:

Telephone: 613 998-6546
Email: vitoum@tc.gc.ca

---

Emergency Response Assistance Plan – Potential Accident Assessment

(Paragraph 7.2(2)(h) of the Transportation of Dangerous Goods Regulations)

By Eve Poirier

When the Transportation of Dangerous Goods Regulations—Clear Language came into force on August 15, 2002, certain amendments were made to Emergency Response Assistance Plan (ERAP) requirements, namely the addition of a potential accident assessment.

What information is required to meet the new requirements of the Regulations, as set out in paragraph 7.2(2)(h)?

First, you need to identify what could happen during transport, the hazards related to these potential occurrences, and the appropriate remedial measures to take to correct the situation.

---

1 Paragraph 7.2 (2)(h) of the Transportation of Dangerous Goods Regulations states:

“A potential accident assessment including:
(i) a general analysis of how an accidental release of dangerous goods could occur,
(ii) a general description of the potential consequences of an accidental release of dangerous goods, and
(iii) a description of the action the applicant is expected to take in the event of an accidental release or an imminent accidental release of dangerous goods.”
How could an accidental release or an imminent accidental release of dangerous goods occur when you consider the means of containment and mode of transport used? All possible causes of such releases must be identified, e.g., damage or malfunction to a valve or a safety vent, damage to a means of containment that could affect its integrity or retention capacity, cracks in the means of containment or a fire nearby involving the means of containment.

Once you have identified how an accidental release could occur, you must then consider the potential consequences of such a release, i.e., what are the possible hazards if there is a leak or spill of dangerous goods? Could there be a chemical reaction with air, water or other conditions at the site of the accident? Could a flammable, corrosive or toxic atmosphere be created? Is there a risk of thermal hazard if in contact with the dangerous goods?

What should be done to correct the situation and what remedial measures could be undertaken (neutralization, transfer, unloading)? Should the site be evacuated? Should the accident be assessed? Should the means of containment be assessed, including an inspection of all valves, safety vents and other accessories and any damage to the means of containment? Should the surrounding air be sampled? Should the leak in the means of containment be stopped? A list of specific actions to take and not to take must be established for each dangerous good identified in the application for approval of an Emergency Response Assistance Plan. You must also ensure that the emergency response equipment used during an incident is appropriate for the dangerous goods.

The purpose of paragraph 7.2(2)(h) is to identify situations that could arise during transport and to adequately prepare for them. By doing this exercise, you will be able to determine your degree of readiness and your ability to respond.

Following is an example of a company that files an application for approval of an Emergency Response Assistance Plan with Transport Canada under section 7.2 to transport propane, class 2.1, UN1978, by tanker truck for road transport only.

Included in the application is the following potential accident assessment:

1. For a minor road accident not involving the means of containment or the load of propane, but during which there could be injuries, we must ensure that the driver is transported for appropriate medical care.

2. For a road accident involving the tank, but with no leak of dangerous goods:

First, a 100-metre safety perimeter (Reference: Emergency Response Guidebook ERG2004) will be established to ensure that all sources of danger are eliminated (e.g., ignition or other sources) thereby ensuring the safety of first responders. If necessary, the local fire department will be on-site to respond. This safety perimeter can involve road closures, evacuation of a number of residences in the area or any other action deemed necessary. It is important to mention that the safety perimeter can be revised following a thorough assessment of the incident and will be re-assessed periodically or when significant changes occur at the accident site.

Sampling of surrounding air will be done with an explosion meter to identify any leaks, regardless of their size, to determine whether a flammable atmosphere is present. Given its density of 1.55, propane vapour can be present at ground level or can accumulate in cavities. When sampling air, special attention must be given to depressions, ditches, sewers and enclosed spaces.

An inspection of the tank, with special attention given to the weld joints and valves, will be carried out. If the tank was overturned, it is possible to transfer the load as long as certain factors are taken into consideration, including damage to the tank and valves, the position of the tank, the capability of the tow-truck or other factors, while always looking out for the safety of the first responders and the public. Also, before the tank is used again, we must ensure that there are no dents, cracks or other damage that could affect its integrity and load capacity, as set out in paragraph 8.1.2 of the CAN/CSA B620-98 standard entitled "Highway Tanks and Portable Tanks for the Transportation of Dangerous Goods."

The following safety measures will be taken for a transfer: the tank will be bonded and grounded, a clapper valve will be installed between the valve and storage tank, and an inspection of all valves, safety vents and other accessories and any damage to the means of containment will be performed.

The following safety measures will be taken for a transfer: the tank will be bonded and grounded, a clapper valve will be installed between the valve and storage tank, and an inspection of all valves, safety vents and other accessories and any damage to the means of containment will be performed.

1. The Transportation of Dangerous Goods Act defines “accidental release” as follows: “An unplanned or accidental discharge, emission, explosion, outgassing or other escape of dangerous goods, or any component or compound evolving from dangerous goods; or emission of ionizing radiation that exceed a level established under the Nuclear Safety and Control Act.”

2. The Transportation of Dangerous Goods Regulations define “imminent accidental release” as follows: “for dangerous goods in transport in a large means of containment, that there has been an incident and
(a) there is likely a need to remove or transfer all or a portion of the dangerous goods to another large means of containment;
(b) there is damage to the means of containment which, if not corrected, could result in an accidental release of the dangerous goods in a quantity or emission level that exceed those set out in the table to subsection 8.1(3) of Part 8, Accidental Release and Imminent Accidental Release Report Requirements; or
(c) the large means of containment is lost in navigable waters.”
the connecting hose (if the transfer must be interrupted in case of emergency) and there will be an inspection of the connections to stop any leaks.

If the tank is severely damaged, residual propane vapour can be burned off with a torch used for this purpose.

3. For road accidents involving the tank with a leak of dangerous goods:

Remedial measures referred to for road accidents involving the tank with no leak of dangerous goods (in item 2) also apply to road accidents involving the tank with a leak of dangerous goods depending on the specifics of the leak.

A safety perimeter will be established. All sources of ignition will be eliminated within the safety perimeter. Remember, static electricity is a substantial source of ignition, which is why you must ensure proper bonding and grounding.

The tank and valves will be inspected to locate the leak. If a valve leaks, it will be stopped. If the leak cannot be stopped, a transfer will be carried out followed by the burning-off of residual vapours. If necessary, the local fire department could disperse the vapour using a mist of water.

If the tank leaks, all possible measures will be taken to stop the leak. The transfer will be done and the vapour burned off. If the crack is too large and cannot be stopped, it is unlikely that the transfer would be possible. In such cases, the propane will simply evaporate, as its boiling point is -44°F or -42°C.

To avoid an accumulation of vapour at ground level, a mist of water will be used to disperse the vapour.

4. For a road accident involving a fire:

In the event of a fire, there are two possibilities: a fire involving the tank or a fire involving the tank and its contents.

If a tire were to catch fire, it could be extinguished. You must, however, be mindful of the safety vent in order to detect a higher pressure in the tank due to the heat of the fire. When spraying water to cool down a means of containment, you must be very careful not to spray safety devices, as they may become blocked by ice.

Familiarity with the BLEVE video would be an asset. If you would like to obtain a copy of the BLEVE: Response and Prevention Compact Disk, please contact Doug Dibble by e-mail at: dibbled@tc.gc.ca.

If the fire involves the tank and its contents, i.e., the fire is fuelled by the leak, the propane feed must be cut if it can be done safely.

If the propane feed cannot be cut, proceed to a safe distance, and let the product burn off. Remember, means of containment could rupture through a BLEVE (Boiling Liquid Expanding Vapour Explosion).

When preparing an action plan, it is important to remember that a means of containment is under pressure, especially when it is involved in a fire.

(continued on page 9)

15th World Conference on Disaster Management
July 10 – 13, 2005
Metro Toronto Convention Centre, South Building
www.wcdm.org

Delegates and speakers from around the globe will converge on Toronto in mid-July to present, discuss and share their experiences and knowledge over all fields of Disaster Management and Emergency Preparedness.

The conference begins on Sunday, July 10th, 2005 with morning and afternoon workshops, and ends with a keynote luncheon address by Martha Evans, CEO and President of the American Red Cross, on Wednesday, July 13th. In between, delegates can choose from over 60 plenary and breakout sessions covering topics from Risk Assessment and the Incident Management System to lessons learned from field exercises and real events.

The management, control and transportation of dangerous goods is a major element in the emergency planning and risk assessment for all levels of government and agencies as well as the enterprises that produce and handle them. Many of the participants of the conference are directly or indirectly affected.

Plan to attend to learn more of the wider field of emergency preparedness and disaster management and how the Transportation of Dangerous Goods (TDG) fits within the whole.

To register, or for more information, visit the conference website at www.wcdm.org
The potential accident assessment will enable the holder of the Emergency Response Assistance Plan to determine remedial measures and the equipment and human resources that must be included in the plan.

**ACCIDENT SUMMARY REPORT 2004**

By Susan Williams and Jonathan Rose

As you are aware, the Transport Dangerous Goods (TDG) Directorate allocates resources to pursue the collection of outstanding 30-Day Follow-up Reports. Initial telephone calls precede request letters sent out to the companies suspected of having control, charge or management of the dangerous goods consignment at the time of the accidental release. This, by no means, is an indication of who, in fact, was responsible for the accident. Eventually some letters are redirected to the proper individuals through the assistance of other parties involved in the transportation of the consignment. Your patience and cooperation is always appreciated in assisting the directorate to obtain most of the outstanding 30-Day Follow-up Reports.  

Inspectors in the regional offices conduct follow-up investigations when the request letters are unsuccessful in producing a 30-Day Follow-up Report. This cooperative teamwork approach ultimately improves the accidental release reporting compliance rate by making companies aware of their legal reporting responsibility.

As of March 2005, a total of four hundred and four (404) 30-Day Follow-up Reports were submitted for accidents which occurred in 2004. Almost 73% (294) of these reports were classified as reportable under the reporting threshold described in section 8.3 of the Transportation of Dangerous Goods Regulations. The remaining 27% (110) represent 30-Day Follow-up Reports filed as voluntary accident reports which fall outside the accident reporting threshold requirements. Although, by definition, the voluntary accident reports are non-reportable accidents which occurred in 2004. Every effort was made to vary this sample of accidents, as much as possible, by choosing different provinces/territories, classes of dangerous goods, modes of transport and means of containment as well as taking into account the accident severity.  

For your information, below is a very short selection of these accidents for 2004. Every effort was made to vary the sample of accidents, as much as possible, by choosing different provinces/territories, classes of dangerous goods, modes of transport and means of containment as well as taking into account the accident severity.

The severity level is based on the following 10 questions:

1. Was there a compressed gas or explosive involved?
2. Was there a fire or explosion at the scene?
3. Was there a dangerous goods release?
4. Was there a death, serious or multiple injury?
5. Was there an evacuation or a road closure?
6. Was the accident reported in the press?
7. Were TC personnel at the accident scene?
8. Was site cleanup required?
9. Was property/equipment damage greater than $65,000?
10. Was there mechanical failure of the vehicle?

A point is assigned for each positive response to each of these questions. The sum of the points for the accidents is shown on the next page to represent the accident severity level. For more information, please contact Jonathan Rose at:

**Telephone:** 613 990-1142  
**Email:** rosej@tc.gc.ca
<table>
<thead>
<tr>
<th>DATE</th>
<th>LOCATION</th>
<th>SUBSTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/14/2004</td>
<td>Bezanson, AB</td>
<td>Molten Sulphur</td>
</tr>
<tr>
<td>03/10/2004</td>
<td>Ingram Trail, NT</td>
<td>Ammonium Nitrate</td>
</tr>
<tr>
<td>03/18/2004</td>
<td>Saint John, NB</td>
<td>Nitrogen, Refrigerated Liquid</td>
</tr>
<tr>
<td>04/14/2004</td>
<td>Montréal, QC</td>
<td>Environmentally Hazardous Substance, Liquid, N.O.S.</td>
</tr>
<tr>
<td>05/17/2004</td>
<td>Valleyfield, QC</td>
<td>Vinyl Acetate, Stabilized</td>
</tr>
<tr>
<td>06/09/2004</td>
<td>Shamattawa, MB</td>
<td>Battery Wet Filled with Acid</td>
</tr>
<tr>
<td>07/02/2004</td>
<td>Cambridge, ON</td>
<td>Gasoline and Diesel Fuel</td>
</tr>
<tr>
<td>08/06/2004</td>
<td>Burnaby, BC</td>
<td>Hydrogen, Refrigerated Liquid</td>
</tr>
</tbody>
</table>

### Incident Details

#### 01/14/2004 Bezanson, AB

**Molten Sulphur**

While parked on the side of the road to install tire chains, a tractor tank trailer containing molten sulphur was struck from behind by a cement truck which in turn was struck by the pup trailer of a second jack-knifed tractor trailer and pup. The molten sulphur tanker trailer sustained damage but there was no release of product. The cement truck driver sustained fatal injuries and the driver of the jack-knifed unit was injured and transported to the hospital. Emergency response personnel were on site to check for leaks and damage and to transfer the molten sulphur into another unit. During the transfer operation, 50 kilograms of product was spilled and immediately cleaned up by response personnel.

**Accident Severity Level:** 4

#### 03/10/2004 Ingram Trail, NT

**Ammonium Nitrate**

During transport on a flatbed trailer, two bulk bags containing ammonium nitrate fell off the trailer when the straps holding the bulk bags came loose. The bags ruptured upon impact with the road surface releasing 2,000 kilograms of product. There were no injuries. Company personnel were on site to clean up the spilled product.

**Accident Severity Level:** 2

#### 03/18/2004 Saint John, NB

**Nitrogen, Refrigerated Liquid**

During handling operations at a road terminal warehouse, a cylinder containing nitrogen, refrigerated liquid, was damaged releasing 230 kilograms of product. There were no injuries. The warehouse was immediately evacuated and ventilated as a precautionary measure. Emergency response personnel were on site to secure the leaking cylinder and move it outside to a safe area for disposal by the shipper.

**Accident Severity Level:** 4

#### 04/14/2004 Montréal, QC

**Environmentally Hazardous Substance, Liquid, N.O.S.**

During temporary storage at a marine terminal, an inter-modal tank container containing an environmentally hazardous substance, liquid (2-ethylhexyl nitrate) leaked 91 litres of product from a defective valve. There were no injuries. Emergency response personnel were on site to clean up the spilled product and to temporarily secure the leaking tank container. The remaining product was then transferred into another tank container.

**Accident Severity Level:** 2

#### 05/17/2004 Valleyfield, QC

**Vinyl Acetate, Stabilized**

During a transfer operation from a rail tank car containing stabilized vinyl acetate into a tank trailer, an explosion and fire occurred from the manway cover on the tank trailer burning over 200 litres of product. One employee who was near the tank at the time of the explosion suffered fatal injuries. Emergency response personnel were on site to extinguish the fire and investigate the cause of the explosion.

**Accident Severity Level:** 6

#### 06/09/2004 Shamattawa, MB

**Battery Wet Filled with Acid**

During transport in the nose compartment of an airplane, a battery filled with acid packed in a box that had not been declared as dangerous goods leaked a small amount of product. The leak was discovered when the airplane reached its destination and the box containing the battery was unloaded. There were no injuries. Cargo personnel on site cleaned up the spilled product and repackaged the battery.

**Accident Severity Level:** 2

#### 07/02/2004 Cambridge, ON

**Gasoline and Diesel Fuel**

During transport, a tractor tank trailer and B-Traih pup containing gasoline and diesel fuel overturned and was damaged releasing 5,896 litres of gasoline and 1,000 litres of diesel fuel, some of which entered a storm sewer and flowed into a nearby river. The driver sustained minor injuries and was treated in hospital. Emergency response personnel were on site and evacuated 20 persons from nearby homes while they contained and cleaned up the spill on the road and from the river, before transferring the remaining products into other tank trailers, flushing the sewer system and righting the overturned unit.

**Accident Severity Level:** 5

#### 08/06/2004 Burnaby, BC

**Hydrogen, Refrigerated Liquid**

While setting up to unload from a tank trailer containing hydrogen, refrigerated liquid, the wrong valve was opened. This sudden release of hydrogen resulted in the ignition and burning of 1,459 litres of product. One of the two drivers sustained minor burns and was treated at the scene. Emergency response personnel were on site and established a one-mile evacuation perimeter while they cooled the tank with water until they were able to shut off the valve, which stopped the flow of product. The Emergency Response Assistance Plan was activated during the incident.

**Accident Severity Level:** 7
In August 2004, the Transport Dangerous Goods Directorate conducted a Cross-Border Trucking Survey and Weigh Scale Trucking Survey. Both surveys were conducted across South Western Ontario by a team of two people.

For the Cross-Border Trucking Survey, three bridges were initially selected from a list of major access points between Canada and the United States based upon the highest daily truck volumes: the Blue Water Bridge which connects the cities of Port Huron, Michigan, and Sarnia, Ontario; the Peace Bridge which connects the cities of Fort Erie, Ontario and Buffalo, New York; the Peace Bridge which connects the cities of Fort Erie, Ontario and Buffalo, New York; and the Peace Bridge which connects the cities of Fort Erie, Ontario and Buffalo, New York. The information unique to this survey included placard holder status, placard description and product identification.

At each bridge location, the survey concentrated on the collection of both IMPORT (Canada Bound) and EXPORT (United States Bound) movements. Given the resources available to count the number of trucks within randomly selected time periods, it was impossible to record data for both directions simultaneously. As a result, to improve the quality of the data, the decision was made to work together and gather the data for the IMPORT and EXPORT movements separately at each bridge location.

### How Many Trucks Actually Transport Dangerous Goods Consignments?

**By John A. Read and Jonathan Rose**

<table>
<thead>
<tr>
<th>DATE</th>
<th>LOCATION</th>
<th>SUBSTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/08/2004</td>
<td>Estevan, SK</td>
<td>Anhydrous Ammonia</td>
</tr>
<tr>
<td>10/06/2004</td>
<td>Radium Hot Springs, BC</td>
<td>Liquefied Petroleum Gas</td>
</tr>
<tr>
<td>10/25/2004</td>
<td>Halifax, NS</td>
<td>Paint</td>
</tr>
<tr>
<td>11/19/2004</td>
<td>Port Aux Basques, NL</td>
<td>Polychlorinated Biphenyls (PCBs)</td>
</tr>
</tbody>
</table>

### Incident Details

<table>
<thead>
<tr>
<th>Incident</th>
<th>Details</th>
<th>Accident Severity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>While boarding a ferry, four of seven tractors, each with two dump trailers containing soil contaminated with PCBs, were discovered leaking a liquid sludge onto part of the staging area and ferry. They were removed from the ferry and detained at the marine terminal. The remaining three other units continued their ferry journey. After unloading, the ferry docked and en route to the consignee, the three units developed leaks and were also detained. There were no injuries. Emergency response was dispatched to both sites where samples of the product were taken and sent for PCB level laboratory analysis. Essentially, no PCBs were found in the spilled sludge. The spilled product was cleaned up and the product remaining in all of the units was solidified. The original four units were then released to return to the consignee for unloading and the latter three units continued to their destination.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>During handling operations at an airport warehouse, a box containing three bottles of paint was dropped, releasing 14 litres of product. Warehouse personnel cleaned up the spilled product and placed the damaged box and bottles into an overpack container for proper disposal.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>While pushing tank cars into a town spur line at low speed, a train derailed five rail tank cars containing anhydrous ammonia, four of which overturned. One tank car sustained a damaged weld, releasing a small amount of product. There were no injuries. Emergency response personnel were on site and evacuated 150 nearby residents while they checked for leaks and damage, transferred the product from the overturned tank cars into other tank cars and tank trailers and depressurized and rerouted all the tank cars. They were then moved under e-stopples to a repair facility. The Emergency Response Assistance Plan was activated during the accident.</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>During transport on a downhill curve in rainy weather conditions, a tractor tank trailer and pup containing 64,000 litres of liquefied petroleum gas struck a concrete curb. Both tank trailers became disconnected, broke through the curb and overturned down an embankment into a pond. The lead trailer ruptured, caught fire and exploded burning 31,500 litres of product. The second trailer sustained damage and leaked 300 litres of product. The tractor overturned into the opposite ditch and caught fire burning completely. The driver sustained fatal injuries. Emergency response personnel at the site closed the highway while the fires were extinguished and flared off the remaining 32,000 litres of product in the second trailer before clearing the accident scene. The Emergency Response Assistance Plan was activated during the accident.</td>
<td>6</td>
</tr>
</tbody>
</table>

### Accident Severity Level

- 1: Minor
- 2: Moderate
- 3: Severe
- 4: Critical
- 5: Catastrophic
- 6: Total Loss
from each direction as a team. Therefore, at the bridge locations, both people recorded the same information in tandem to make validation and cross-reference easier. The Detroit-Windsor Ferry Service is dedicated for dangerous goods vehicles moving across the St. Clair River between Detroit and Windsor. According to municipal bylaws, dangerous goods consignments are not permitted through the Detroit-Windsor Tunnel or across the Ambassador Bridge. At the Detroit-Windsor truck ferry-service, it was easy to count the vehicles moving in both directions due to the frequency of movements and the number of vehicles. For this reason, additional information was collected from shipping documents for movements into Canada, as the customs officers were very cooperative.

To complement the cross-border data collected at the bridges, the Weigh Scale Trucking Survey was conducted at two separate weigh scale stations. The eastbound weigh scales near Putnam, Ontario captured trucks traveling along highway 401 from Windsor, Ontario while the westbound weigh scales near Vineland, Ontario captured trucks traveling along highway 403 from Fort Erie, Ontario. During the weigh scale surveys, the truck sampling process focused on only those vehicles with an empty placard holder. Any trucks containing a placard holder with a visible placard were sent directly through the scales, unless the enforcement officer identified problems. At the weigh scales, two people working together were able to interview drivers during the randomly allocated time periods. The personal interview involved a series of questions directed towards each driver’s history transporting dangerous goods. Initially, the primary focus was towards the trailer but later realigned with the driver, once it was clear that very few drivers moved the same trailer on a daily basis.

The Cross-Border Trucking Survey revealed that 44.88% of the trucks counted had a placard holder of which 6.86% actually displayed a dangerous goods placard. This opportunity was used to learn more about the frequency with which drivers actually transport dangerous goods consignments. Using these figures, an annual estimate was developed to measure the potential impact of dangerous goods consignments moving along our roads and highways. Drivers were surveyed to determine the last time they transported a dangerous goods consignment. The Weigh Scale Trucking Survey indicated that 64% of the drivers sampled had transported dangerous goods within the last year. This suggests that at least 28% of trucks transport dangerous goods at least once in a twelve-month period.

Inspection and Test of Portable Refuelling Tanks
By Stéphane Garneau

Several articles and Alerts were published in past issues of this Newsletter explaining the requirements for the selection of portable tanks when transporting gasoline or diesel fuel. This article will focus on the periodic inspection and test requirements which apply to these tanks.

Inspections and tests are necessary to keep the tanks “in standard”, as required by section 5.2 of the Transportation of Dangerous Goods Regulations. The certification safety marks applied on the tank or identification plate determine the applicable periodic inspection and test regime.

If a tank bears a TC 306 or TC 406 identification plate or a “non-specification flammable liquids tank” nameplate, the user of the tank must follow the periodic inspection and test schedule set out in the CAN/CSA-B620-98 standard (“external visual” and “leak test” every year; “internal visual” and “pressure” every five years). The tests and inspections must be done by a facility registered with Transport Canada to test and inspect highway tanks in accordance with CSA-B620-98 standard. Upon passing the inspection and test, a report is issued and the tank is marked with the month and year of inspection, the letters indicating the type of inspection conducted (i.e. V, K, I and P) and the last three digits of the registration number of the inspection facility.

If a tank bears the markings of a UN Standard Intermediate Bulk Container (IBC), DOT, TC 57 portable tank, or ULC/ORD C142.13 “Mobile Refuelling Tank”, the requirements set out in section 13 of the standard CAN/CGSB 43.146-2002 “Design, Manufacture and Use of Intermediate Bulk Containers for the Transportation of Dangerous Goods” are applicable. Only tanks with a capacity greater than 450 litres and intended for liquids are subject to periodic inspection and leak test requirements.

The standard CGSB 43.146 has two distinct sets of requirements: paragraph 13.2.8 sets out the requirements which apply to mobile IBCs, and paragraph 13.2.7 applies to other types of IBCs.

A mobile IBC is an IBC that is intended to be loaded, stored and unloaded while on a means of transport, but
does not include the fuel tank of a vehicle. Most slip tanks would thus meet the definition of a mobile IBC and would be subject to the specific requirements for this type of IBC. A ULC/ORD C142.13 tank may only be used as a mobile IBC. Other tanks that meet the definition of a mobile IBC, whether it is a UN Standard IBC, a UN Standard mobile IBC, DOT, or TC 57 portable tank, must be inspected in accordance with Appendix C of standard CGSB 43.146 every 60 months. The inspection is to be conducted by a facility registered with Transport Canada for the leak test inspection of IBCs. Upon passing the inspection, an inspection record is issued and the tank is marked with the letter “R” followed by the month and year of the inspection, followed by the registration number of the inspection facility.

Some mobile IBCs have no large openings or are of a double wall construction, making it completely or partially impossible to conduct the internal or external visual inspection of the tank. When such a mobile IBC cannot be inspected, a leak test should be conducted in accordance with the requirements of Appendix C in standard CGSB 43.146 to ensure that the tank shows no defects that could render the tank unsafe for transporting dangerous goods.

Tanks that do not meet the definition of a mobile IBC must be leak tested and inspected every 30 months. The initial date of manufacture or the last inspection and test done in accordance with the standard CSA-B620-98, as for DOT or TC57 tanks, may be used as the starting date for the 60-month period. Please note that ULC/ORD C142.13 tanks are marked with the year of manufacture only; therefore, the month of manufacture shall be taken as December.

ULC/ORD C142.13 tanks may have a capacity of up to 5000L. Although a UN Standard IBC has usually a capacity limit of 3000L, Transport Canada has recently issued registration certificates to designs of UN Standard IBCs with capacities of up to 4500L using the “W” mark to identify an exception, which in this case is the capacity being greater than the general limit set out in the standard. These tanks are marked as UN 31AW tanks. The tanks with capacities over 3000L that meet the definition of a mobile IBC should be treated as such for the purpose of periodic inspection and test.

The Transport Dangerous Goods Directorate maintains a list of facilities registered to inspect and test highway tanks or IBCs. Please visit the following website: [http://www.tc.gc.ca/tdg/containers/menu.htm](http://www.tc.gc.ca/tdg/containers/menu.htm). If you would like to view past articles and Alerts on this subject, you may also visit the following website: [http://www.tc.gc.ca/tdg/newsletter/menu.htm](http://www.tc.gc.ca/tdg/newsletter/menu.htm)

---

**Transport Dangerous Goods Inspectors’ Workshop**

*By Nathalie Béliveau and Jonathan Rose*

The goal of the *Transportation of Dangerous Goods (TDG) Act* is to promote public safety in the transportation of dangerous goods. The Act provides the authority to develop requirements and restrictions so that the risks associated with their transport is reduced to an acceptable level. The Act also recognizes there must be compliance with the regulatory requirements for the benefit of these requirements to be realized. This recognition is provided in the form of authorities to be used in achieving compliance, such as inspection authorities to promote compliance, and penalties that can be applied in the event of non-compliance.

The Transport Dangerous Goods Directorate has a team of highly trained and experienced inspectors responsible for monitoring compliance with the *TDG Act* and Regulations, carrying out investigations and taking enforcement action. The inspection force, distributed in five regional offices across Canada, focuses its efforts on shippers, receivers and importers of dangerous goods and federal carriers.

In February 2005, forty-eight Transport Dangerous Goods (TDG) inspectors met for three days in Calgary to exchange information, share experiences and best practices, review policies and procedures, assess national strategies and plan future actions. Specialists from the Transport Dangerous Goods Directorate made presentations to the inspectors on various topics such as inspections, investigations, enforcement, sampling and instrumentation, occupational health and safety, accident attendance, emergency response assistance plans, means of containment verifications, and training.

Inspectors were then asked to review in separate sessions the information presented, identify areas of improvement, and make recommendations to enhance the national TDG compliance and enforcement program.

Overall, the National Transport Dangerous Goods Inspectors’ Workshop - 2005 provided an excellent forum for inspectors from all parts of Canada to provide the input and feedback necessary to maintain a national program that is efficient, effective and uniform. A program delivered with equal force and consequence.
Based on the success of this Workshop, plans are being made for another national gathering of the inspection force sometime in late 2006.

**New Editions of CSA Standards on Gas Containers**

**By Nicole Noccey, Pascal Verville and Zenon Lewycky**

National Standard of Canada CAN/CSA-B339-02 prescribes the requirements for the manufacture, inspection, testing, marking, and periodic requalification of cylinders, spheres, and tubes for transport of compressed gas. The safety requirements for the selection and use of cylinders, spheres, and tubes are prescribed in the National Standard of Canada CAN/CSA-B340-02. Both these standards have been revised. The revised editions are the subject of the fourth amendment to the *Transportation of Dangerous Goods (TDG) Regulations* which is expected to come into force shortly. The text of the fourth amendment to the *TDG Regulations* may be viewed on our website at: www.tc.gc.ca/tdg/menu.htm. Copies of the revised standards may be obtained by contacting the Canadian Standards Association at 416 747-4000, by fax at 416 747-2473, or by visiting their website at: http://www.csa.ca.

Among the changes in CSA B339 is a new requirement for facilities applying for registration as requalifiers of cylinders by the hydrostatic retest and visual inspection method. Applicants for registration and for renewal of registration will now be required to include in their application a description of the training, qualifications, and experience that would enable their staff to perform the inspections and tests required by that standard. Transport Canada will assess the adequacy of the training identified by each applicant in deciding whether or not to grant a registration. As always, an applicant must show that it is familiar with the standard and capable of consistently complying with its requirements.

Transport Canada is familiar with certain commercially available training packages for cylinder requalifiers, having reviewed them in advance. Applicants may attest to having attended one of these courses by submitting copies of training certificates obtained from the trainer. Applicants electing to engage other training providers or electing to conduct in-house training will be required to submit details of this training to Transport Canada for review.

Other revisions to CSA B339 include:

- an allowance for smaller markings (3mm vs. 6mm) on cylinders less than 125 mm in outside diameter provided the marks are clear and legible;
- an allowance for the use of stainless steel for the manufacture of TC-3EM cylinders (only carbon steel was authorized previously); and
- a requirement to remove (e.g., by peening out or stamping over with a series of Xi) the specification designation and service pressure markings on a cylinder that is required to be condemned. Alternatively, the word “CONDEMNED” must be permanently and legibly stamped on the shoulder, top end, or neck of the cylinder.

The revised CSA B340 contains new requirements pertaining to cylinder valve protection. Cylinders manufactured on or after October 1, 2007 will have to be provided with a means of protection that satisfies a 1.2-metre drop test instead of the current topple test. For cylinders manufactured prior to October 1, 2007, the topple test will apply only where a cylinder valve is to be considered to have inherent protection.

The new drop test for cylinder valve protection devices involves testing three cylinders fitted with the valve and the means of protection followed by a leak test at a minimum pressure of 0.2 MPa. All means of protection having passed the specified drop test will have to be certified and marked accordingly by the manufacturer or user of the means of protection.

The revised CSA B340 standard also includes provisions for transport of salvage containers used for damaged or leaking cylinders. These salvage containers must meet the requirements of one of seven US DOT exemptions from the US 49 CFR Hazardous Materials Regulations and must have been manufactured before January 1, 2006. Salvage containers that are manufactured as of January 1, 2006 will require a Permit for Equivalent Level of Safety from Transport Canada.

The revised CSA B340 standard also will allow compressed natural gas to be filled and transported in stainless steel, aluminum, and aluminum-lined composite cylinders. In addition, the requirement to transport cylinders in a vertical position will now apply only to cylinders filled with a refrigerated liquid or with a liquefied flammable gas.

For more information on the training requirements for cylinder requalifiers, to obtain a list of trainers that have submitted their course packages for advance review by Transport Canada, or to learn more about how in-house training programs will be assessed, please contact Nicole Noccey by telephone at 613 990-1169 or by email at: nocceyn@tc.gc.ca.
Carriage of Ammunition on Board an Aircraft

Issue
Transport of ammunition and firearms (loaded or unloaded) on board a commercial aircraft.

Transport Canada Regulations
- The transport of loaded firearms onboard a commercial aircraft is prohibited. (For details see section 3).
- Peace officers as defined in this Notice, are allowed to carry unloaded firearms on board a commercial aircraft. (For details see section 4).
- Ammunition may be carried in checked baggage. (For details see subsection 5.1).
- Ammunition may be carried as cargo. (For details see subsection 5.2).

1.0 Introduction
This Notice pertains to the transport of ammunition and firearms (loaded or unloaded) on board a commercial aircraft, and is of importance to Air Operators, the Canadian Air Transport Security Authority (CATSA), Security Screening Agencies, Police Officers, and Peace Officers.

2.0 Regulatory Text
The Transportation of Dangerous Goods Regulations (TDGR), and by reference, the 2005/2006 International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI’s) regulate the transport of dangerous goods to, from and within Canada. The Canadian Aviation Security Regulations (CASR) regulate aviation security.

3.0 Transport of a loaded firearm on board an aircraft
- The CASR prohibit the transport of loaded firearms on board an aircraft.

4.0 Transport of unloaded firearms on board an aircraft
The TDGR does not regulate the transport of unloaded firearms, as there are no dangerous goods present.
The CASR state that peace officers, as defined in the CASR, are permitted to carry or have access to unloaded firearms on board an aircraft if they require access to the firearm immediately before, during or immediately after the flight (such as a prisoner escort). Certain conditions must be met and are outlined in the CASR.
The CASR define a “peace officer” as follows:
(a) a member of the Correctional Service of Canada who is designated a peace officer under Part I of the Corrections and Conditional Release Act and any other office or permanent employee of a prison other than a penitentiary as defined in Part I of the Corrections and Conditional Release Act;
(b) a member of the Royal Canadian Mounted Police and a police officer, police constable or any person who is designated by the Solicitor General, the Commissioner of the Royal Canadian Mounted Police or a provincial minister as a peace officer for the purpose of the preservation and maintenance of the public peace at an aerodrome; and
(c) an immigration officer who is enforcing any provision of the Immigration Act or any regulations, warrant, order or direction made under the Immigration Act respecting the arrest, detention or removal from Canada of any person.

5.0 Transport of ammunition on board an aircraft
5.1 Passenger Baggage
- Police officers or peace officers may carry ammunition in checked baggage in compliance with the Part 8 - Provisions for Passengers and Crew, which read:
8.1.1.2 - The provision of these Instructions do not apply to the following when carried by passengers or crew members or in baggage, transported by the operator, that has been separated from its owner during transit:

(d) with the approval of the operator(s), as checked baggage only, securely packaged cartridges (UN 0012 or UN 0014 only), in Division 1.4S, in quantities not exceeding 5 kg gross mass per person for that person’s own use, excluding ammunition with explosive or incendiary projectiles. Allowances for more than one person must not be combined into one or more packages.”

5.2 Cargo

For the requirements governing the transport of ammunition as cargo on board an aircraft refer to section 12.1 and 12.4 of the TDGR which are reproduced at the following websites:

www.tc.gc.ca/tdg/clear/part12.htm#12.1
www.tc.gc.ca/tdg/clear/part12.htm#12.4

For additional information, please contact the following offices:

Atlantic Region: 506 851-7247
Prairie and Northern Region: 780 495-5278
Pacific Region: 604 666-5655
Ontario Region: 416 952-0000
Airline Inspection: 514 633-3116

Or visit the website at: www.tc.gc.ca/civilaviation/commerce/dangerousgoods

---

**CANUTEC**

October 1, 2004 to April 30, 2005

---

**Emergency Calls by Class of Dangerous Goods**

| Class | Explosives | Compressed Gas | Flammable Liquids | Flammable Solids | Oxidizers and Organic Peroxides | Poisons and Infectious Substances | Radioactives | Corrosives | Miscellaneous | Non-regulated | Mixed Load | Unknown | Total |
|-------|------------|----------------|-------------------|------------------|-------------------------------|----------------------------------|-------------|-----------|---------------|--------------|-----------|--------|
| 1     | 3          |                |                   |                  |                               |                                  |             |           |               |              |           |        |
| 2     |            | 118            |                   |                  |                               |                                  |             |           |               |              |           |        |
| 3     |            |                | 114               |                  |                               |                                  |             |           |               |              |           |        |
| 4     |            |                |                   | 9                |                               |                                  |             |           |               |              |           |        |
| 5     |            |                |                   | 9                | 32                            |                                  |             |           |               |              |           |        |
| 6     |            |                |                   |                  | 35                            |                                  |             |           |               |              |           |        |
| 7     |            |                |                   |                  | 4                             |                                  |             |           |               |              |           |        |
| 8     |            |                |                   |                  | 169                           |                                  |             |           |               |              |           |        |
| 9     |            |                |                   |                  | 9                             |                                  |             |           |               |              |           |        |
| NR    |            |                |                   |                  | 70                            |                                  |             |           |               |              |           |        |
| Mixed Load | 1 |                 |                   |                  |                               |                                  |             |           |               |              |           |        |
| Unknown | 25 |                |                   |                  |                               |                                  |             |           |               |              |           |        |

* includes primary and subsidiary classes, and possibly multiple DGs per emergency.

---

**Emergency Calls by Location**

<table>
<thead>
<tr>
<th>Location</th>
<th>Calls</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia</td>
<td>72</td>
</tr>
<tr>
<td>Alberta</td>
<td>57</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>13</td>
</tr>
<tr>
<td>Manitoba</td>
<td>24</td>
</tr>
<tr>
<td>Ontario</td>
<td>133</td>
</tr>
<tr>
<td>Quebec</td>
<td>123</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>7</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>10</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>2</td>
</tr>
<tr>
<td>Newfoundland and Labrador</td>
<td>8</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>0</td>
</tr>
<tr>
<td>Yukon</td>
<td>1</td>
</tr>
<tr>
<td>Nunavut</td>
<td>1</td>
</tr>
<tr>
<td>United States</td>
<td>18</td>
</tr>
<tr>
<td>International</td>
<td>1</td>
</tr>
</tbody>
</table>

---

**Emergency Calls by Transport Mode**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Calls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road</td>
<td>129</td>
</tr>
<tr>
<td>Rail</td>
<td>102</td>
</tr>
<tr>
<td>Air</td>
<td>7</td>
</tr>
<tr>
<td>Marine</td>
<td>4</td>
</tr>
<tr>
<td>Pipeline</td>
<td>0</td>
</tr>
<tr>
<td>Non transport</td>
<td>228</td>
</tr>
<tr>
<td>Multimodal</td>
<td>0</td>
</tr>
</tbody>
</table>