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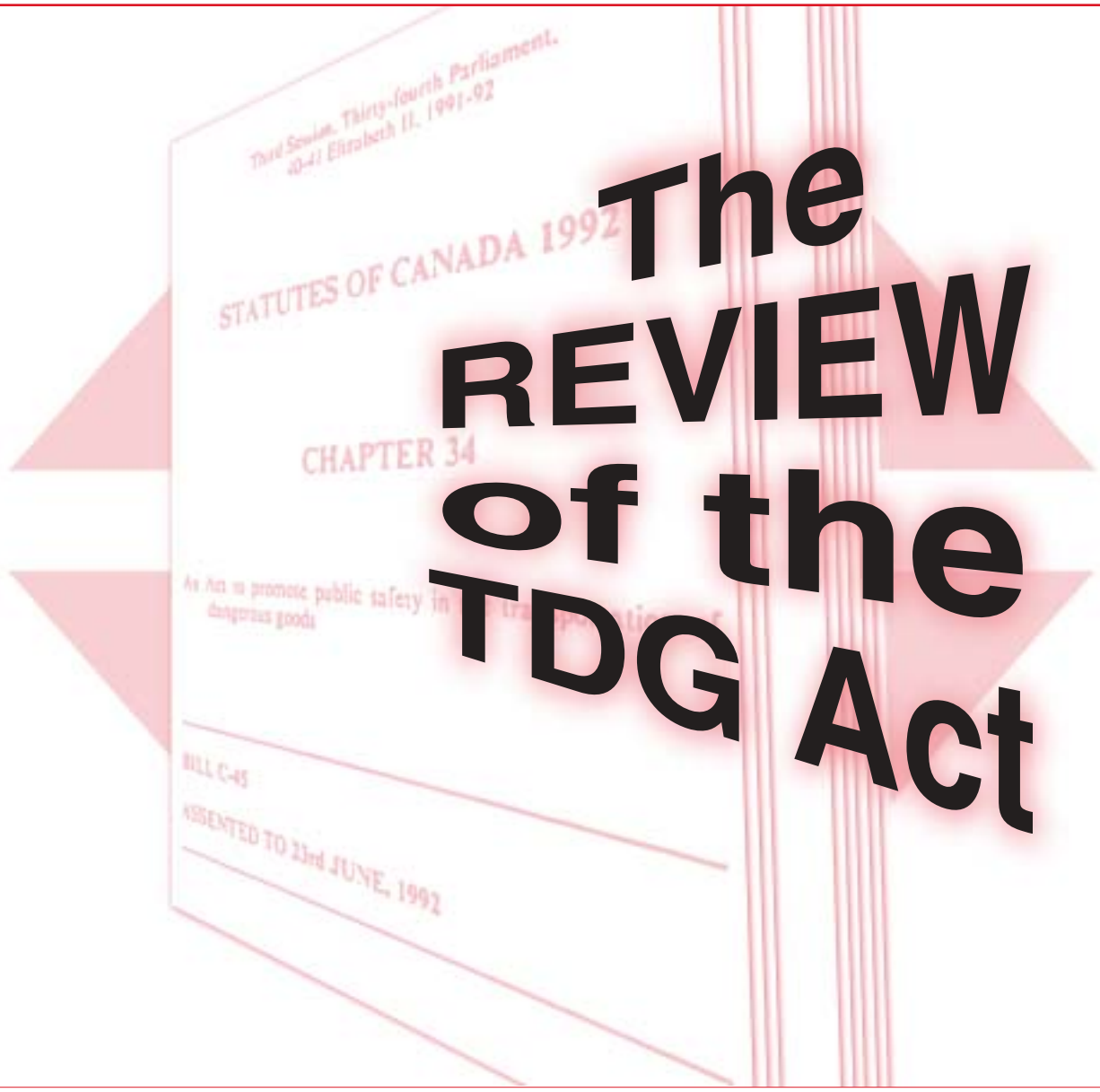

The REVIEW of the TDG Act

Transport Canada Transports Canada

Canada

Content

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Editorial

Welcome to the Fall 2003 edition of this newsletter.

As you will see from the feature article, the Directorate has begun a review of the *Transportation of Dangerous Goods Act* passed by Parliament in 1992. We invite you to submit comments on any concern or issues you may have. The process and proposed timetable are explained on page 4.

You will also find informative articles on pages 6, 9, and 10, which give the Directorate's interpretation on several questions that are often asked as a result of the Clear Language Regulations.

In addition, I would like to draw your attention to a new feature on the TDG Web site for all subscribers of this newsletter. You will be able to make your own changes to our mailing list by visiting the Web site. Additional information is provided on page 9.

Finally, as we look forward to another year, I would like to extend to all our readers my very best wishes for 2004!

Renée Major

CANUTEC – Celebrating its 25th Anniversary! *By Michel Cloutier*

CANUTEC—the Canadian Transport Emergency Centre—and the Transport Dangerous Goods Directorate, were established in July 1979 to promote public safety during the transportation of dangerous goods. CANUTEC is responsible for providing guidance and emergency response information to both emergency responders and the Canadian public.

Although CANUTEC was originally faced with a few thousand calls per year, it is now involved with more than 30,000 calls annually. Every call is logged and recorded for future review and analysis. Each incident also involves a rapid risk assessment of the situation based on a variety of factors including the nature of the good being transported, its location relative to populated areas and other environmental considerations.

For the Health and Safety of Canadians

CANUTEC continuously strives to improve its services in order to provide enhanced tools and information for Canadians. In fact, CANUTEC offers a registration program through which Canadian companies can obtain permission to display the CANUTEC 24-hour emergency telephone number on their dangerous goods shipping documents. This is a free, 24 hours a day, seven days a week service for the Canadian industry. More than 6,000 companies now benefit from this essential safety program.

Under the Government On-Line (GOL) initiative, CANUTEC is now developing a web-based registration system that will facilitate registration and the ongoing maintenance of information provided by the industry. CANUTEC has also developed an information database containing more than 1,000,000 Material Safety Data Sheets that can be immediately accessed by Emergency Response Advisors to help provide essential technical information and advice to fire, police, ambulance, hospital services and the public to protect the health and safety of Canadians.

A Great Tool

Furthermore, CANUTEC has published the Emergency Response Guide 2000 (ERG2000) in English, French and Spanish and is presently revising the document for the next North American 2004 edition. The ERG2000 is an emergency response guidance document distributed by Transport Canada to emergency responders throughout Canada.

In order to enhance access for Canadians to this valuable publication, CANUTEC has developed two electronically accessible versions of the document that are available on the CANUTEC Web site at: <*www.canutec.gc.ca*>. The Web site offers a wealth of information, as well as related links to the world of dangerous goods management. Transport Canada can be proud of the ERG2000; this great tool is now used in many countries throughout the world and has been translated into other languages including Dutch, German, Hebrew, Hungarian, Italian, Japanese, Korean, Polish, Russian and Turkish.

25 Years of Professionalism and Dedication

CANUTEC is now approaching its 25th anniversary. This is certainly a cause for celebration. Two major factors are behind the success of CANUTEC—a management vision of delivering service to Canadians and the professionalism and dedication of CANUTEC personnel in providing assistance to Canadians 24 hours a day, seven days a week.

CANUTEC is one of the major safety programs that Transport Canada has established to promote the safe movement of people and goods throughout Canada, and yet another example of Transport Canada's pursuit of excellence in delivering *Results For Canadians*.

FEATURE

The Review of the TDG Act

By Raymond Auclair

The *Transportation of Dangerous Goods Act, 1992* is an "Act to Promote Public Safety in the Transportation of Dangerous Goods."

Background

The TDG Act, 1992, received Royal Assent on June 23, 1992. It replaced the old TDG Act passed by Parliament in 1980. Development of TDG Regulations began soon after 1980, with the first complete set of regulations coming into force in 1985.

The five-year preparation yielded more than just a set of regulations. The provinces and territories allowed the federal regulation makers to coordinate the needs of all levels of government into one text. The "product" was a regulatory text which applied everywhere in Canada, sometimes under federal jurisdiction, sometimes under the appropriate provincial jurisdiction. In practice, we had thirteen distinct regulatory texts which, in general, carried the same requirements.

Today, there are 14 legally distinct texts (1 federal, 10 provincial, 3 territorial) which, by the choice of each jurisdiction, contain the same words. There are exceptions to this "copy and paste" approach; however, they are usually minor or they cover local needs, like rules for road tunnels in Quebec and in British Columbia. In addition, the Canadian TDG Regulations incorporate international harmonization and trans-border reciprocity.

Although the TDG Regulations appear almost seamless, the application of the old TDG Act was far from being without question. The old act found its application through the *National Transportation Act*. Therefore, it could only apply to certain modes (rail, marine, air) and to inter-provincial and international activities for any mode.

Many defendants challenged the old TDG Act, using arguments involving the Constitution, the Charter and even basic principles of law such as unequal application. For example, it was possible to have on the same road, two identical vehicles carrying the same dangerous goods over hundreds of kilometres; the one that happened to stop 1 km before crossing into the next province was not subject to the old TDG Act (and its penalties) while the other, for the sake of that kilometre, was subject to the old TDG Act.

The Review of 1990-1992, A Model For the Current Review

The review of the old TDG Act began well before 1990. However, by 1990, it was clear that the Act was in danger of being declared void by the courts and there was a real sense of urgency to complete a review and to make necessary changes.

It was important to rebuild the authority under which the TDG Regulations were made which, in turn, provided the structure for the entire collaborative TDG Program in Canada. Because of the scope and magnitude of the problem, it was important to proceed rapidly, yet in a structured manner.

The Process

Step 1: Identify the issues. This was done by consulting the regulating authorities (provinces, other federal departments), the inspectors (our own and others), the regulated industry (consignors, carriers, manufacturers, users, importers and exporters of dangerous goods), the public and people working on their behalf (police, fire fighters, medical community), and other interested groups (e.g., insurers, environmentalists). Over one hundred issues were identified.

Step 2: Categorize and prioritize the issues. At first we wanted to have a "top ten" list. As the number of identified major issues grew, we aimed for the "top 25". We grouped similar issues together, or created themes (e.g., anything dealing with the

Charter or the Constitution). We identified 37 issues which, admittedly, did not cover everything unearthed during step 1.

Step 3: Describe the issues. The 37 issues were consolidated in a consultation document originally published in the *TDG Newsletter*, and also made available on the TDG Web site and available as an attachment to correspondence. We prepared a brief description of our understanding of each issue and our proposed solutions (given that we understood the issue). Readers were invited to comment both on the description (i.e., do we understand the issue properly?) and our proposal (would the solution work?).

Step 4: Invite participation. Copies of the consultation document prepared at step 3 were sent (along with an invitation to comment) to all identified major stakeholders, including any person who expressed an interest – whatever the reason. We met with each provincial government and with many associations (e.g., CCMTA—Canadian Council of Motor Transport Administrators) to advise them of the process. We put ads in various trade journals and talked to reporters, putting out the message that we were consulting.

When we expected reactions from a particular sector of the industry, and failed to get it, we would seek them out, to the point of sending individual letters to Chief Executive Officers.

Step 5: Consult on the issues. The appropriate exchange of ideas was mostly done through correspondence (the Web did not exist yet and email services were very basic). There were discussion meetings with some groups (certain sectors of the industry, emergency responders, carriers) and among federal departments and agencies. The phone was also used but it was found that it was most useful as a support for letters and faxes. This step was the longest one, overlapping steps 4, 6 and 7.

Step 6: Analyze the results. Hundreds of responses were received. Some only covered one or two issues, many were general and some (over twenty) gave detailed comments on each issue. We had to "modify our perception" on a few issues (e.g., if our description of an issue was wrong). However, most comments were about proposed solutions, where we were given ample opportunity to adjust our position. We developed an indicator to quickly assess the overall comments. It showed in real time (day-to-day) the issues on which our perception or our proposed solutions met with the greatest resistance.

Step 7: Seek expert advice. Some comments forced us to seek expert advice on how an issue could be addressed. For example, it was common at the time for governments to establish clean-up funds, fed by a levy on goods being manufactured or transported. Because of the nature of the industry and how such funds would have to be administered (a jurisdictional nightmare), our initial proposal was shot down by just about everyone. We met with insurance experts and replaced the proposal with a legal obligation for financial responsibility, which is normally met in the form of insurance policies.

Step 8: Make the decisions. Once all the information was in, it was time to make the decisions. These were discussed with the provincial and territorial representatives, with the Minister's Advisory Council on Dangerous Goods, even with Opposition Critic on Transportation.

Step 9: Realize the decision. This step involved preparing a Memorandum to Cabinet, recommending various options to the government and more consultation at the federal level. The Cabinet requested a new TDG Act. We worked with Justice to prepare a Bill; prepared explanatory binders, draft speeches and notes for both Houses, and we attended Parliamentary Committees in both Houses, with more speaking notes and background material. Finally, we had Passage of the Act and Royal Assent.

Here We Go Again (The 2003 Review of the *TDG Act, 1992*)

When the *TDG Act, 1992* was passed, there was a commitment to review its application after a period of ten years. In early 2002, we were heavily involved in analyzing security issues with TDG. It was impossible to launch a complete review of the Act before Summer 2003.

Certainly, during the year and a half since September 11, 2001, the *TDG Act, 1992* and the TDG Program were reviewed (at least internally) with respect to security issues.

As for a more general review of the TDG Act, there is not a sense of urgency that existed in 1990. The Act now deals almost exclusively with public safety and appears well based on the Criminal Law Head of

Power of the Canadian Constitution. All provinces and territories have well-established legislation and programs in place, so that there are no gaps in the TDG Program or, at least, certainly none of the scope of the gaps that existed in 1990.

Nevertheless, we intend to follow the same procedure (the nine steps) this time as we did in 1990-1992.

Step 1 begins

We are soliciting views on what issues exist in relation to the *TDG Act, 1992*. We welcome comments on any concern that anyone may have (e.g., safety, security, interaction with other programs, redundancy, new technology). We will, of course, take note of comments already received over the last ten years and include them in any list of issues that we prepare for Step 2.

We will accept comments in any format and through any medium. Given our experience in the early nineties, we know that comments that explain an issue in relation to the existing Act (something in the Act or something thought to be missing from the Act) are ideal but we would rather know about an issue even if there is no proposed solution. Let the future work and consultation deal with possible solutions.

Proposed Timetable

Comments received before the end of December 2003, may be included in the document prepared at Step 3. We will continue to accept comments (even new issues) after that date.

We expect to complete Step 8 by the end of December 2004.

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Through our Web site:
<http://www.tc.gc.ca/tdg/consult/menu.htm>

By telephone:
1 888 758-9999

Leave your name, complete phone number with area code, and a brief summary of your comment. We will contact you.

Is the Safety Mark Misleading?

The Directorate's interpretation of section 6 of the
Transportation of Dangerous Goods Act, 1992

By Jacques Savard

Is it misleading to add dangerous goods safety marks when they are not required by the Regulations?

The Interpretations Working Group is often asked this question. To answer it, one must probe the meaning of "misleading as to the presence of danger, the nature of any danger or compliance with any prescribed safety standard", which appears in the text of section 6 of the *Transportation of Dangerous Goods Act, 1992*.

"No person shall display a prescribed safety mark on a means of containment or transport, or at a facility, if the mark is misleading as to the presence of danger, the nature of any danger or compliance with any prescribed safety standard".

This provision was introduced when the 1992 Act was drafted, as a result of a practice which had come to the attention of the Directorate. Some people would display four danger placards on their trucks in the event they would have to carry dangerous goods one day. In fact, all of these trucks did so very rarely, and each time they were involved in a road-related incident, the first responders would have to look for the dangerous goods to ensure that they posed no safety risk. Much effort, time and money were wasted. The purpose of section 6 was to put an end to this practice.

A. Safety Marks

Section 6 only applies to safety marks which can be of two types:

1. certification safety marks; and
2. dangerous goods safety marks

Certification safety marks are defined in section 1.4 of the Regulations as:

> **"a design, symbol, device, letter, word, number or abbreviation that is displayed on a means of containment or means of transport to indicate compliance with a safety standard".**

The metal plates indicate compliance with a standard and are applied to a standardized means of containment. For example, these plates are displayed on most highway tanks carrying flammable liquids.

Dangerous goods safety marks are defined in section 1.4 of the Regulations as:

> **"a label, placard, orange panel, sign, mark, letter, word, number or abbreviation that is used to identify dangerous goods and to show the nature of the danger posed by them".**

This type of safety mark includes the shipping name, the UN number, class, packing group, risk group, labels, placards and technical name, when required.

Hence, section 6 of the Act only deals with specific information and does not include all the information required on the shipping document or means of containment.

B. Nature and presence of danger

A comparison of the French and English texts of section 6 of the 1992 Act allows us to see that there is a difference between both versions. In English, reference is made to the nature and presence of the danger while the French text only refers to the nature of the danger. How do we reconcile this difference?

According to section 13 of the *Official Languages Act* in Canada, both the English and French documents have equal authority under the law. No version takes precedence over the other. This means that an interpretation is never complete without a joint interpretation of both the French and English versions to find a meaning that is compatible with both versions.

The interpretation here is easy to develop. It is clear that the French expression «*trompeuse quant à la nature du danger* » can be used to describe cases where there is no danger. Consequently, the French text can be understood the same way as the English text. We can therefore understand the meanings of nature and presence of danger in French as well as in English.

Therefore, in accordance with section 6 of the Act, a safety mark can be misleading with respect to either the nature or the presence of danger. If a safety mark indicates the presence of dangerous goods in a means of containment or a vehicle and there are none, it is misleading with respect to the presence of danger.

On the other hand, when a safety mark indicates the presence of a class of dangerous goods when, in fact, the goods belong to another class, the safety mark is misleading with respect to the nature of the danger.

However, when a safety mark indicates that a certain class of dangerous goods is present and that a substance from that class is clearly present but in quantities lower than the limits prescribed by the Regulations, can the safety mark still be considered misleading with respect to the presence or the nature of the danger?

C. Nature and presence of danger based on the quantities present

To answer this question, here are a few cases. In the first case, a product is sent under an exemption and labels are not required to be displayed. For example, the product is shipped as a limited

quantity as per section 1.17 or under a personal exemption as per section 1.15. In both cases, and as is the case with other exemptions, a label is not required.

If, for whatever reason, a label to indicate the class is displayed, is the safety mark misleading?

In this case, there is no possible error with respect to the nature or presence of danger. The limited quantities contain a product in the class indicated which, without section 1.17, would require labels for this class.

A similar case involving large means of containment is also possible. Consider, for example, a truck with a box containing 495 kg of dangerous goods and displaying placards. Are these placards misleading? "No" they are not. On the other hand, if the truck only contained 25 kg, our answer would be "yes". To understand this apparent contradiction, one must ask the question "for whom should the safety mark not be misleading?"

Safety marks were initially developed to assist first responders approaching a means of containment. They must be advised of both the existence and the nature of the danger. It is imperative that they know what they are dealing with and the scope of the problem they face. Their response will vary depending on the nature of the substance and the quantities involved.

Placards on large means of containment, such as trucks, indicate to first responders the nature of the dangerous goods and the order of magnitude of the amounts involved. They know that the presence of a placard indicates that dangerous goods transported are either substances requiring an Emergency Response Assistance Plan (ERAP) or substances exceeding 500 kg. A difference of a few kilos for shipments weighing 500 kg will not alter the type of response they will initiate.

However, if the truck is empty or almost empty and the placards indicate that a significant quantity is still present, their risk assessment will be distorted and the response needlessly exaggerated, perhaps to the point of responding to an essentially empty truck before responding to a second truck with a full load.

What about international shipments under the IMDG Code and the dangerous goods safety marks which must remain displayed on a means of containment until its contents have been neutralized? In these cases, a distinction must be made between large and small means of containment. There will be no confusion with small means of containment because responders will know they are dealing with small means of containment and their response will be adjusted to the level of risk.

As for large means of containment, the Regulations require compliance with the IMDG Code which stipulates that international shipments require placards on all means of containment, regardless of the quantities involved. They also know that placards must still be displayed on large means of containment which have not been purged and neutralized (generally tanks or intermediate bulk containers (IBCs) under subsection 4.9(1) of the Regulations. They will prepare accordingly.

However, when a truck, which normally does not contain any residue, displays placards and has a minimal quantity of dangerous goods, the responders may be misled with their response and intervention, and the safety marks displayed on the vehicle will then be considered misleading under section 6 of the *Transportation of Dangerous Goods Act, 1992*.

D. Conclusion

For a displayed dangerous goods safety mark to be misleading, it must have the potential to be misleading in a significant manner to first responders about the risks involved.

The Responsibilities of a Stationary Carrier

The Directorate's interpretation of the definition of "carrier" in the *Transport of Dangerous Goods Regulations*

By Jacques Savard

It is common during the transportation of goods that a certain shipment may involve several carriers. This occurs when one mode of transportation is changed to another (e.g., from a ship to road or rail carriers) but can also happen within two segments of the same mode of transport.

For example, a trucker could leave his shipment in a supervised location (e.g., terminal, warehouse) where a second trucker would take possession to continue transport.

When subsection 3.10(2) of the Regulations applies, is the person in charge a "consignor" a "carrier" or something else under the *Transportation of Dangerous Goods Regulations*?

The Transportation of Dangerous Goods Regulations were written in such a way that someone is always responsible for dangerous goods "in transport" at all times in Canada. This is the basic principle of subsection 3.2(3) of the Regulations which reads as follows:

> **"Dangerous goods in transport are in the possession of a carrier from the time the carrier takes possession of them for transport until another person takes possession of them".**

Therefore, if the first carrier leaves his shipment in a vacant field or in an unsupervised area, he retains possession of the goods and is still responsible for them. However, if he leaves the shipment in a supervised location, someone else takes possession. This person is the guardian of the area.

By taking possession of the dangerous goods "in transport", the guardian himself becomes a carrier, as per the definition of "carrier" in section 1.4 of the Regulations:

> **"person who, whether or not for hire or reward, has possession of dangerous goods while they are in transport".**

As a carrier, even though a "stationary carrier", the guardian of these goods must meet all the regulatory requirements applying to carriers. For example, he cannot accept the dangerous goods without a shipping document. He must give the shipping document to the next carrier taking possession of the goods. He must keep the shipping document in the location specified by the Regulations. However, he can also benefit from advantages available to other carriers such as the electronic transfer of documents (subsection 3.1(2)), the replacement of documents (subsection 3.2(7)), etc.

It is important to note that for the transfer of goods that originate from outside Canada to another destination outside Canada, the "stationary carrier" also becomes the "importer", pursuant to the definition of "import" in the TDG Act, while in possession of the goods.

> "import (from the Act)
> means import into Canada**, and includes transporting goods that originate from outside Canada and pass through Canada to a destination outside Canada**, except when the goods are being transported on a ship or aircraft not registered in Canada".

As a carrier/importer, a person who carries dangerous goods in quantities which require an Emergency Response Assistance Plan (ERAP) shall also be responsible for having such a plan filed with Transport Canada as per section 7.1.

SOMETHING NEW FOR ALL SUBSCRIBERS!

Effective immediately, subscribers to the Dangerous Goods Newsletter will be able to make their own changes to the mailing list by visiting the TDG Web site at: <*http://www.tc.gc.ca/tdg/menu.htm*>

Simply click on **NEWSLETTER**, **REQUEST** and choose options, **NEW**, **MODIFY**, or **CANCEL** to make your change. As an added feature, if you would like to reduce the paper copies and replace them by an e-mail notification when the new issue is available on-line, you will be able to do so by choosing **NEW SUBSCRIPTION**. Please remember to cancel your subscription, if you are currently receiving the paper copy.

Outer Packaging and Standards

The Directorate's interpretation of subsection 5.12(1) of the *Transport of Dangerous Goods Regulations*

By Jacques Savard and Stéphane Garneau

Subsection 5.12(1) of the Regulations stipulates that dangerous goods included in Classes 3, 4, 5, 6.1, 8 or 9 and transported in a small means of containment must be transported in a UN standardized means of containment selected and used in accordance with CGSB-43.146-2002 or CGSB-43.150-97.

A question is raised regarding the application of this provision when a standardized packaging is placed in another packaging. Should the second packaging be standardized as well? If so, should we follow the same reasoning for all layers of packaging? The Directorate's answer to this question is quite simple.

Once the dangerous goods are packaged in a small UN standardized means of containment, the requirements of subsection 5.12(1) have been met. Standardized means of containment for all additional layers of packaging are therefore not required by the Regulations, since the basic condition in subsection 5.12(1) has been met. Several packages that are in compliance with CGSB43.150 and/or several Intermediate Bulk Containers (IBCs) filled or closed according to CGSB43.146 can also be placed in a larger container, without the outer packaging requiring a UN packaging.

A word of caution, however. Some packing instructions require a type of packaging more complex than a single package. These include combination or composite packaging or composite IBCs. Combination packaging consists of one or several inner packaging contained in an outer packaging; for example, four 4-litre plastic bottles inside a rigid cardboard case. When combination packaging is required (e.g., for infectious substances), in order to meet the requirements of the standard, the overall packaging must be tested for performance, using the inner and outer packaging used for transportation.

CANUTEC

January 1, 2003 to October 30, 2003

Number of Calls

Technical	8 073
Regulatory	4 470
Information	10 034
Other	4 804
Total	**27 381**
Emergency Calls	**732**

Source of Emergency Calls

Fire Dept.	209
Police Dept.	50
Hazmat Contractor	15
Carrier	251
End User	53
Manufacturer	9
Government	37
Private Citizen	38
ER Centre	17
Poison Control	16
Medical	11
Others	12

Emergency Calls by Class of Dangerous Goods

Class	1	- Explosives	4
Class	2	- Compressed Gas	167
Class	3	- Flammable Liquids	194
Class	4	- Flammable Solids	27
Class	5	- Oxidizers and Organic Peroxides	44
Class	6	- Poisonous and Infectious Substances	54
Class	7	- Radioactives	10
Class	8	- Corrosives	255
Class	9	- Miscellaneous	1
NR		- Non-regulated	52
Mixed Load		-	13
Unknown		-	42

Emergency Calls by Location

British Columbia	82
Alberta	105
Saskatchewan	19
Manitoba	25
Ontario	247
Quebec	159
New-Brunswick	19
Nova Scotia	18
Prince Edward Island	2
Newfoundland	3
Northwest Territories	2
Yukon	0
Nunavut	0
United States	40
International	2

Emergency Calls by Transport Mode

Road	201
Rail	188
Air	12
Marine	7
Pipeline	0
Non transport	323
Multimodal	1

Radiation Protection Program for Carriers

By Sonia Lala

When the Canadian Nuclear Safety Commission (CNSC) put into force the *Packaging and Transport of Nuclear Substances Regulations* in May 2000, two new requirements were imposed on the carriers of radioactive materials: 1) Section 15(7) of these regulations requires carriers to implement and maintain work procedures, and 2) Section 18(1) requires carriers to develop and implement a Radiation Protection Program. An exemption to these two requirements has been granted until May 31, 2004. The CNSC would like to inform all carriers that this deadline will not be extended, and that these requirements will be enforced as of June 1, 2004.

The CNSC recognizes a risk-based approach for the development of such a program. It defines three risk categories based on the dose that can be potentially received by transport workers: Low, Medium and High Risk. Carriers employing workers who have little chance of receiving a dose in excess of 1 mSv per year are considered Low Risk. Carriers employing workers who can potentially receive a dose greater than 1 mSv per year but less than 5 mSv per year are considered Medium Risk. The High Risk category covers all carriers employing workers who can potentially receive a dose greater than 5 mSv per year.

For carriers at low risk of exposure, the basic elements of a Radiation Protection Program may be covered in work procedures as required under Section 15(7) of the *Packaging and Transport of Nuclear Substances Regulations*. A separate Radiation Protection Program is not required. However, carriers at high risk will be responsible for a detailed and complete Radiation Protection Program.

The Canadian Nuclear Safety Commission is currently developing guidance material that will assist carriers in developing a Radiation Protection Program for the transport of radioactive material.

An updated notice will appear in the next issue of this newsletter. Should you have any questions, please do not hesitate to contact Robert Irvine, (613) 995-1491, irviner@cnsc-ccsn.gc.ca, of the Canadian Nuclear Safety Commission.

Emergency Response Assistance Plan (ERAP) Requirements and Gases

By Edgar Ladouceur

Questions have recently been asked regarding requirements found in Part 7 of the TDG Regulations – Emergency Response Assistance Plans (ERAPs). The questions relate to Class 2 (gases) residue in containers being returned by customers, particularly those customers who are located in the United States.

The current ERAP requirements for Class 2 dangerous goods is based on the capacity of the means of containment (container) itself rather than a threshold mass or volume of the residual dangerous goods therein. For example, for Vinyl Chloride the container capacity limit requiring an ERAP is 3000L; for each of Chlorine, Sulphur Dioxide and Ethylene Oxide the container capacity limit is 500L; for Hydrogen Sulphide the limit is 0. When residue containers of ERAPable Class 2 materials are returned to Canada, the consignor (in this case the consignor is the person who imports the dangerous goods into Canada) is responsible to ensure that the carrier has a shipping document that contains the Reference Number and its Activation Telephone Number.

Unless the U.S. customer is aware of the ERAP requirements, the required information may not be entered on the return shipping documents provided to the carrier. It is therefore important for Canadian importers to ensure that U.S. customers returning residue containers of Class 2 dangerous goods are aware of the ERAP requirements under the TDG Regulations.

Civil Aviation Dangerous Goods Public Awareness Stakeholder Committee

By Roger Lessard

Each day, products defined as dangerous goods are transported within Canada. It is essential for the public, government and industry to continually work towards minimizing the risks involved in the transportation of these goods through the application of safe practices.

Many common items used everyday in the bathroom, kitchen, and garage, for hobbies or for work may seem harmless, however, due to their physical and chemical properties they can be very dangerous when transported by air. As a general rule passengers are not permitted to transport dangerous goods on board an aircraft in their carry-on or checked baggage. However, incidents and accidents caused by dangerous goods in carry-on or checked baggage or being shipped undeclared do happen:

- A soap-dispensing bottle containing acid (drain purging liquid) leaked its contents when an over head bin was opened after arrival at the airport. Two passengers were transported to the hospital and treated for third degree burns. Three flight crew, the airport Customer Service Manager and one paramedic were overtaken by fumes and also hospitalized. Before it could be cleaned the fluid had damaged the overhead bins, the seats, the floor and the baggage hold below.
- An undeclared flammable liquid in a passenger's luggage inadvertently ignited in the cargo locker of a DHC-6 Twin Otter 300 causing an in-flight fire. Two crew members and all 13 passengers were killed.
- A nine-volt battery shorted out against a piece of metal causing a pilot's flight case to overheat and explode in the baggage compartment of a Cessna 182.
- A misdeclared fibreboard drum containing five gallons of 50 % hydrogen peroxide and 25 lbs. of a corrosive agent leaked during a flight on a DC-9 causing an in-flight fire in the cargo compartment. Just before landing smoke began to fill the passenger cabin.

The Dangerous Goods Standards Division, Civil Aviation Directorate, Transport Canada is responsible for the development and implementation of the Civil Aviation Dangerous Goods Public Awareness Program. Initiated in 1998, the Program went through extensive review in 2000/2001 to reflect the Civil Aviation Flight 2005 Safety Framework: "We are here for aviation safety". This resulted in the Dangerous Goods Standards Division soliciting the support of various organizations from both the government and industry to launch the Civil Aviation Dangerous Goods Public Awareness Stakeholders Committee.

In choosing participants for this Committee, it was recognized that both government and industry have a vested interest in ensuring that the public is encouraged to transport dangerous goods safely.

The Civil Aviation Dangerous Goods Public Awareness Program Stakeholders Committee, made up of both government and industry, held their first meeting June 9 and 10, 2003. During that meeting the Terms of Reference were finalized, target groups identified, a Strategic Plan adopted, and strategic partnering developed.

During future meetings the Committee will be responsible for:

- Developing a strategic plan;
- Accessing strategic partnerships;
- Defining needs;
- Establishing and re-evaluating goals;
- Identifying communication tools;
- Evaluating outcomes;
- Consolidating awareness capabilities through leveraging, networking, and sharing expertise;
- Obtaining strategic stakeholder buy-ins;
- Implementing effective, timely, and cost effective strategic information delivery;
- Developing short and long-term data collection mechanisms.

If you are interested in learning more about the Committee please contact Roger Lessard at: 613 991-3988 or by email at: lessaro@tc.gc.ca.

Do Your Service Vans Transport Gas Cylinders or Other Kinds of Dangerous Goods?

(Take Note: Service Vans Are Not Exempt from the Transportation of Dangerous Goods Regulations)

By Debbie Mayers

Since August 15, 2002, service vans are no longer exempt from the *Transportation of Dangerous Goods (TDG) Regulations*. A technician driving a service vehicle (both pick-up trucks and closed vans) with refrigerants, welding gases, drain cleaning chemicals, or any other items common to this industry and classed as dangerous goods without a training certificate issued by his/her employer (or self, if self-employed), and a shipping document, will be in non-compliance with the TDG Regulations. A dispatcher who schedules work involving dangerous goods or a warehouse employee who moves these goods, or a clerical staff who prepares the documents, all require training.

What Are Dangerous Goods?

There are nine different classes of dangerous goods listed in Schedule 1 of the TDG Regulations. Most service vehicles would likely carry a few of these classes: Class 2, Gases (compressed, deeply refrigerated, or dissolved under pressure) which has 3 divisions – 2.1, 2.2, or 2.3 (Refrigerant Gases are either a class 2.1 or a 2.2, dependent on the gas, while Oxygen and Nitrogen are a Class 2.2); Class 3, Flammable Liquids; or Class 8, Corrosives. Also, each dangerous goods is assigned a "UN number, which includes "UN" followed by four digits, and a shipping name.

How Do the TDG Regulations Apply to Service Vehicles?

The TDG Regulations do provide partial exemptions from the regulatory requirements. These partial exemptions are found in either Part 1, Special Cases, or in Schedule 2, Special Provisions and apply **only** if **all of the conditions** of the partial exemptions are followed. Below are the partial exemptions that could apply to service vehicles and the section of the TDG Regulations where they are found:

Special Provision (SP) 42 (Schedule 2):

- This partial exemption provides relief to **only** the following six Class 2 dangerous goods, provided that **all of the conditions** outlined below, are followed:
  - o Acetylene; Air, compressed; Argon, compressed; Methylacetylene and propadiene mixture, stabilized; oxygen, compressed; and propane *NOTE that NO refrigerant gases or Nitrogen are included in this exemption.*
- There can be no more than 5 means of containment (cylinders)
- The dangerous goods have a gross mass less than or equal to 500 kg; and
- The labels displayed on the means of containment (cylinder) can be seen from outside the road vehicle. *(This means that the cylinders could be in a pick-up truck box, provided that the dangerous goods labels on the cylinders are visible from outside the truck).*

Thus, if you are transporting any of these specific six gases, and meet ALL of the conditions listed, you do not require documentation, training, or need to placard the vehicle.

1.16 (Part 1): 500 kg Exemption:

This partial exemption will most likely apply to most service vans. Note that cylinders must be of an approved specification and must be requalified periodically. Furthermore, labels with the dangerous goods "UN" number and shipping name must be displayed on the container/package/cylinder, and that training is still required for this partial exemption. Remember that ***all of the conditions*** *outlined below, must be followed to use this exemption.*

- The dangerous goods in transport have a gross mass less than or equal to 500 kg.
- All classes, except Class 2, of dangerous goods must be in one or more means of containment (a container or packaging), where each has a gross mass less than or equal to 30 kg, and the containers are such that under normal conditions of transport, there will be no accidental release of the dangerous goods.
- Class 2, gases, must be in a means of containment (cylinder) that is in compliance with Part 5, Means of Containment. This means that the cylinder has

been manufactured, selected and used in accordance with a prescribed standard.

  - o To be in compliance with Part 5 of the TDG Regulations, the cylinder must be of an approved specification and must be within its prescribed requalification interval. The kind of test to be conducted and the frequency of the test varies dependent on the gas in the cylinder and the construction of the cylinder. Cylinders can only be inspected and requalified by a company that is registered with Transport Canada to do so. These "registered facilities" are listed on the TDG Web site under "Containers".
  - o Note that no one may fill a cylinder that is not "in standard" - that is the cylinder cannot be past its due date for requalification. Manufacturers may sometimes stamp the testing frequency directly on to the collars of these cylinders. This is valuable information but the retest frequency may change depending on the substance contained in the cylinder. It has been discovered that a number of cylinders that contain refrigerant gases and that are used to recover refrigerants are long past the required test date – which is a violation of the TDG Act and Regulations. Reclaimed refrigerants are considered to be corrosive to the cylinder, and cylinders in that service require an increased requalification frequency.

- The dangerous goods are accompanied by a shipping document that only needs to indicate the primary class of the dangerous goods, following the word "Class", and the total number of means of containment (package/container/cylinder), following the words "number of means of containment";
  - o For example:
    - *Class 3, number of means of containment, 1*
    - *Class 2.1, number of means of containment, 2*
    - *Class 2.2, number of means of containment, 3*
    - *Class 8, number of means of containment, 1*
- The means of containment (package/container/cylinder) displays the dangerous goods label, which includes the "UN" number and shipping name; and
- The person transporting the dangerous goods is trained in accordance with Part 6, Training.
  - o It is the responsibility of the employer to issue a training certificate, with specified information on it, to their employee. The training must be adequate and specific to the duties that the employee performs. A listing of training organizations and a sample training certificate is found on the TDG Web site under "Training". Keep in mind that Transport Canada does NOT certify any of the training organizations listed. Thus, test the organization's knowledge by asking questions to see if they understand some of the requirements applicable to your needs and that are referenced in this article. A training certificate is valid for three years.

- NOTE: Section 1.16 CANNOT be used for:
  - o Almost all Class 1, Explosives
  - o Class 2.1 (Flammable Gases) in a cylinder with a water capacity greater than 46 litres.
  - o Class 2.3 (Toxic Gases)
  - o Some dangerous goods in Class: 4; 5.2; and 6.1
  - o Class 6.2, Infectious Substances; and Class 7, Radioactives

What Are the Penalties for Non-Compliance?

Section 33 of the TDG Act outlines the consequences for any person who fails to comply. The fines for non-compliance with the TDG Act and Regulations can be a maximum of $50,000 per person per day for a first offence, and up to $100,000 for each subsequent offence. However, Section 1.13 of Part 1 refers to due diligence and states that "a person must not be found guilty of an offence if it is established that the person took all reasonable measures to comply with the Act or to prevent the commission of the offence."

For further information or should you have any questions on the TDG Act and Regulations, please contact the Regional offices or visit the TDG Web site at: <*www.tc.gc.ca/tdg/menu.htm*>

Dangerous Goods Public Display Cabinets

We are pleased to announce that two Dangerous Goods Display Cabinets have been installed in Canadian airports: the first one at the Dorval Airport, in Quebec and the second one at the Lethbridge Airport, in Alberta. Each display contains mock-ups of dangerous goods items that should not be packed in carry-on or checked baggage when travelling by air. The Passenger Dangerous Goods Awareness Brochure (TP13570) is also available in a holder attached to the display booth.

A special thanks is extended to the Quebec Region and the Prairie and Northern Region, Commercial and Business Aviation Dangerous Goods Inspectors, and to the Commercial and Business Aviation Dangerous Goods Standards Division in Headquarters for their efforts in making this happen.

Call for Volunteers

If you or your organization have a stake in standards development and would like to be a part-time participant on a dedicated team of technical professionals, *the CGSB Committee on the Reconditioning of Drums for the Transport of Dangerous Goods CAN/CGSB -43.126-98* is asking for your support.

The Committee works to reflect the needs of industry and the public by addressing health and safety in a national standard. The scope of the standard includes the reconditioning and remanufacturing processes for steel and plastic drums, the quality management system specifications applicable to re-conditioners and re-manufacturers, and Transport Canada registration requirements.

Committee membership is open to those who are knowledgeable in the reconditioning or remanufacture of steel or plastic drums. Membership is in one of the following four categories: producers; users, regulators and general interest.

As a voting member, you will attend Committee meetings, review the standard itself and vote on proposed changes. Your input will ensure a balanced representation of industry viewpoints and updating current industry practice, and provide both you the member and your sponsoring organization due recognition as leaders in your field of expertise. You may also choose to participate as a non-voting member. You will receive the most current working drafts and minutes of meetings but are not obliged to attend the meetings.

For membership or further information on this or other Committees currently working on standards that relate to the Transport of Dangerous Goods, please contact the following CGSB officer:

John Knox
Canadian General Standards Board
Telephone: 819 956-7430
Email: John.M.Knox@pwgsc.gc.ca

On behalf of my colleagues in the Transport Dangerous Goods Directorate, I would like to wish Season's Greetings to all our Newsletter readers and all the best for the coming year.