Instructions for Taking the Hazardous Waste Transport Licence Knowledge Test

Who must take the test?

One representative of the company (**owner or an employee of the company**) that has applied for the transport licence must take the test. The test taker must be involved in the **daily operations of the business.**

The validity of the licence also relies on the presence of a company representative (owner or employee) having taken and passed the test. As soon as the carrier knows that the employee who passed the test will leave or if that employee is no longer an employee of the carrier, the licencee must ensure that the company representative takes and passes the test. To be in compliance, it is suggested that a new test taker passes the exam within 2 weeks the former test taker leaves his/her employment with the carrier.

Note: A contractor hired or contracted by a carrier is **not an employee** under employment laws and, therefore, is not eligible to take the test as the company representative.

Even though at the present time not all drivers or employees are required to take the test, it is a responsibility and a requirement that every person who performs duties related to the transportation of hazardous waste (owner and employees) be knowledgeable in:

- Applicable provisions in the B.C. *Environmental Management Act*
- Applicable provisions in the B.C. Hazardous Waste Regulation
- Applicable provisions of EMA's regulations such as Spill Reporting Regulation and Contaminated Sites Regulation
- Conditions specified in the carrier's licence
- Any federal Acts and regulations applicable to transportation of hazardous wastes and where applicable the hazardous wastes themselves

Carriers have the responsibility of ensuring that anyone transporting hazardous waste knows their responsibilities and what to do when there are emergencies (spills, fires, etc.) through their own in-house training and contingency plans, which are specifically related to the types of hazardous waste they are authorized to transport.

When and where the test can be taken?

The first step is to obtain a transport licence application package. A completed application package will consist of the application form, required supporting documents and the application fee. The completed package must be sent to the Ministry of Environment office in Victoria for processing.

The test can be taken **after** the completed application package has been received by the ministry.

Arrangements can then be made to take the test by contacting the ministry office in Victoria at (250) 356-5044. Requests to take the test must be made at least 7-10 days before the proposed test date to allow for processing of request and monitoring/proctoring arrangements.

You will be asked to provide the following information:

- Tentative or proposed date(s) and time(s) of the test.
- Name(s) of employee(s) taking the test
- Proposed location to take the test

Where there is an office of the Ministry of Environment close to the area where the test taker wishes to take the test, arrangements will be made with a ministry staff to monitor the test. Confirmation of date, time, location and contact information will be provided.

If monitoring of the test by a ministry staff is not possible, the carrier must make arrangements to obtain a proctor from a nearby educational institution (college/university). A proctor is a person who monitors or supervises students during examinations. The carrier will be responsible for making the arrangements with the institutional proctor and for providing the proctor's contact information to the Ministry of Environment. The carrier is also responsible for any proctoring fees/expenses incurred.

Which test to take?

There are 2 types of tests: the general driver's test and waste specific tests. The test to take is determined by the waste types that have been indicated on the application form.

1. Waste Specific test: transporting a single type of hazardous waste, either asbestos, waste batteries, biomedical waste or petroleum product (i.e., waste oil)
2. General test: transporting more than one type of hazardous wastes or a type of hazardous waste for which a specific test has not been created.

The **Waste Specific Tests** address specific waste types. As a result, the test questions are more focused on knowledge that transporters must have for these wastes and their transport. There are 20 questions and the passing grade on the waste specific test is 80%.

The **General Test** focuses on the general responsibilities of carriers. This includes the responsibility to have reasonable knowledge of hazardous wastes, provincial legislation, and federal legislation as it relates to the provincial legislation, documentation, safe transport, spill and emergency response while on route in B.C. There are 40 questions and the passing grade on the General Driver's Test is 70%.

How long is the test?

- You are given 2 hours (120 minutes) to complete the general driver's test (40 questions).
- You are given 1 hour (60 minutes) to complete a waste specific test (20 questions).

Please read the questions carefully. Additional time may be given if requested.

What to bring to the test room?

The tests are open book exams - you are allowed to refer to the study material found in the application package while taking the test. It is important and it is your responsibility to bring your own copies of the study material. It could be very helpful to have your own copies as you may have put side notes, bookmarked sections and highlighted information that you considered important or necessary to remember. Moreover, the proctor will not have copies of the study material for your use during the exam.

It is suggested that you also bring:

- Identification document with photo such as driver's licence
- Pencil, pen, eraser
- A sweater due to possible room temperature fluctuations
- Cushion for your chair if you have a back problem
- Bottled water
- Eyeglasses, if you need them for reading

Communication devices (such as mobile/smart phones) and/or electronic devices (such as laptop, tablet, notebook and computer) are not necessary for the test and **may not** be used during the test.

What to study?

The questions were mainly derived from the following sources:

- *Environmental Management Act*, SBC 2003 Chap. 53, as amended from time to time
- Hazardous Waste Regulation, B.C. Reg. 63/88, as amended from time to time
- Spill Reporting Regulation, B.C. Reg. 263/90 as amended from time to time
- 2005 Hazardous Waste Legislation Guide
- Manual for Completing B.C.'s Hazardous Waste Manifests and Supplementary Forms

Please note that both the Legislation Guide and the Manual for completing manifests are not legal documents; they may not be up-to-date and are for guidance only. If there is discrepancy or conflict, the *Environmental Management Act*, its regulations and other legislation take precedence.

The Transportation of Dangerous Goods (TDG) training alone is not sufficient to pass these tests because many hazardous wastes are not dangerous goods. However, a person must be familiar with the federal *Transportation of Dangerous Goods Act* and Regulations because most hazardous wastes are also classified as dangerous goods. When transporting hazardous wastes that are also dangerous goods, the carrier must also comply with the requirements of the *Transportation of Dangerous Goods Act* and Regulations. Manifesting requirements are also based on the federal legislation. Hazardous wastes that are dangerous goods must be manifested while being transported in British Columbia. Wastes that are defined as hazardous wastes in B.C., but are not dangerous goods, **must still** be manifested for transportation in B.C.

The additional resources mentioned below are reference materials that can be used by the test taker in order to better prepare for the test or to have a better understanding of the issues involving hazardous waste. These resources are directly and indirectly related to transportation.

- BC Ministry of Environment Hazardous waste website: http://www2.gov.bc.ca/gov/content/environment/waste-management/hazardous-waste
- WHMIS where appropriate and available
- Contingency Plans, Emergency Response Plans from the carrier company
- Transport Canada website for information on the federal Transportation of Dangerous Goods (TDG) Regulation: http://www.tc.gc.ca/eng/tdg/safety-menu.htm
- Environment Canada's website for information on waste management: http://www.ec.gc.ca/gdd-mw/ (it contains information on import and export of hazardous waste, PCB issues and regulations, inter-provincial movement of hazardous waste and hazardous recyclables, etc.)

- Emergency Response Guidebook: a Guidebook for First Responders During the Initial Phase of a Dangerous Goods/Hazardous Materials Transportation Incident, developed jointly by Transport Canada (TC), the US Department of Transportation (DOT), the Secretariat of Transport and Communications of Mexico (SCT), 2012 (or most recent)
- Recommendations on the Transport of Dangerous Goods: Model Regulations. New York, New York: United Nations, 2015 or most recent edition.
- Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria. New York, New York: United Nations, 2014 or most recent edition.
- Fingas, Mervin F., The Basics of Oil Spill Cleanup. CRC Press, 3rd ed., 2012.
- NIOSH/OSHA Pocket Guide to Chemical Hazards. NIOSH, CDC, U.S. Department of Health and Human Services, 2010 or most recent edition.
- Lewis, Richard J., Sr., Sax's Dangerous Properties of Industrial Materials. 12th ed. John Wiley & Sons, Inc. Publication, 2012.
- Weiss, G., Hazardous Chemicals Data Book. 2nd ed. Park Ridge, New Jersey: Noyes Data Corporation, 1986.
- National Fire Protection Association, Fire Protection Guide to Hazardous Materials. NFPA, 14th ed. 2010.
- O'Neil, Maryadele J., et al. The Merck Index: An Encyclopedia of Chemicals, Drugs, and Biologicals. Royal Society of Chemistry, 2013 or most recent edition.
- Rose, Vernon and Cohrssen, Barbara, ed. Patty's Industrial Hygiene and Toxicology. John Wiley & Sons, Inc. Publication, 2011.
- Gosselin, Robert E., et al. Clinical Toxicology of Commercial Products. 5th ed. Baltimore, Maryland: Williams & Wilkins, 1984.

Various associations provide information and resources on hazardous waste and its transportation; some of them are as follows:

- Canadian Standards Association (CSA): http://www.csagroup.org/
- Canadian Council of Ministers of the Environment (CCME): http://www.ccme.ca/
- Hazardous waste website of the BC Environmental Industry Association (www.bceia.com): http://www.hazwastebc.com/
- BC Trucking Association website: http://www.bctrucking.com/
- Canadian Association of Petroleum Products: http://www.capp.ca/

If you know of other relevant resources, feel free to contact the ministry office in Victoria at hazwaste@Victoria1.gov.bc.ca so that we can include other sources of information to this guideline.

How to study?

The tests are open book, so it is important that you know where to look for the information related to the question. Everyone has a different way of studying. Some need to use memorization techniques to remember certain information, others have photographic memory, and others use different tools to be able to remember and/or to look for information. Familiarise yourself with and get comfortable with your study material. When reading your study material, it is suggested that you highlight important information, write side notes and bookmark the sections in the order that makes most sense for you.

It is also recommended that you look up and study the information that relates to hazardous waste transportation and to the specific types of waste that you intend to transport in this study material and in the additional study resources.

> **TIP:** Use online versions of study material, legislation and other resources to look up key words (e.g. “manifest”, “registration”, “asbestos”, “public road”, “training”). This is a quick way to find where specific terms appear in the study materials, and to see how the legislation interrelates.

Use the Table of Contents in the Hazardous Waste Regulation to familiarize yourself with the structure of the regulation and to find specific sections. Read and understand the definitions of waste types and other important terms (e.g., storage, labpack and manifest) in Part 1 – Interpretation and Application of the Hazardous Waste Regulation. The same principle is applicable to the *Environmental Management Act*.

Although test questions about the TDG Regulations topics are not as specific as those for the Hazardous Waste Regulation, applicants for licences to transport hazardous waste should be generally familiar with the TDG Regulations and have received training on the TDG regulation because many hazardous wastes are also dangerous goods.

Transport Canada’s Emergency Response Guidebook includes a quick reference guide to its contents. Use this guide to find the information that relates to hazardous waste transportation and to the specific types of waste that you intend to transport.

The BC Ministry of Environment website offers links to news, informative newsletters and fact-sheets, and other useful websites. Use these online resources to look up and study information that relates to hazardous waste transportation and to the specific types of waste that you intend to transport. The information found in these websites contains clarifications or simplified phrasing of the regulation in a way that anyone can understand and use.

For the waste specific tests, it is expected that the carrier will have done his or her own research on the issues related to the specific waste that the carrier proposes to transport. For example, some study material and best management practices/standards for biomedical wastes can be found at the CSA and CCME websites.

It is also assumed that a responsible carrier will have compiled a contingency plan with the relevant information about the specific waste using emergency guidebooks, material safety data sheets, chemical handbooks and other resources.

What are the questions like?

The tests consist of questions in both **multiple-choice** and **true/false** formats similar to the examples shown below:

Example 1: A manifest is required when a carrier transports a pail (25L) of waste oil.

A. True.
B. False.

Comments: The answer is “B”. A manifest is required when carrying over 210 L of waste oil (see Section 46 (1) (g) of the Hazardous Waste Regulation). Although you may not specifically plan to carry waste oil, you must know that there is a minimum amount of hazardous waste for which a manifest is required; you must know where to find this information in the regulation and how it applies to you.

Example 2: According to the Hazardous Waste Regulation, which of the following are not hazardous wastes?

A. Off specification methane gas cylinder and asbestos.
B. Waste oil and biomedical waste.
C. Leachable toxic waste and waste gasoline.
D. Domestic sewage and animal carcasses
E. Corrosive wastes, infectious wastes, and waste batteries.

Comments: The answer to the question is “D”. Many times a generator, especially small generators, rely on the carrier to determine if a waste is hazardous, to determine if a manifest is required and would even ask the driver for suggestions on where to take the waste. It is important that the driver have a general idea of what falls under the definition of hazardous waste in British Columbia. He/she will go to Section 1 of the Hazardous Waste Regulation (HW Regulation), under the title of ”Interpretation” and look up the definition of hazardous waste:

"hazardous waste" means
(a) dangerous goods if they
(i) are no longer used for their original purpose, and
(ii) meet the criteria for Class 2, 3, 4, 5, 6, 8 or 9 of the federal dangerous goods regulations,
including those that are recycled, treated, abandoned, stored or disposed of, intended for recycling, treatment or disposal or in storage or transit before recycling, treatment or disposal,
(b) PCB wastes,
(b.1) biomedical wastes,
(c) wastes containing dioxin,
(d) waste oil,
(e) waste asbestos,

(f) waste pest control product containers and wastes containing pest control products, including wastes produced in the production of treated wood products using pest control products,
(g) leachable toxic waste,
(h) waste containing tetrachloroethylene,
(h.1) wastes listed in Schedule 7,
(h.2) Repealed. [B.C. Reg. 261/2006, s. 1 (b).]
(i) waste containing polycyclic aromatic hydrocarbon, and
(i.1) Repealed. [B.C. Reg. 319/2004, s. 3 (e).]
but does not include
(j) household refuse that is collected from residential premises,
(k) domestic sewage,
Etc.…

There are a few points to consider. One must have some familiarity of the federal TDG Regulation. Methane gas is a flammable gas and falls under class 2, more specifically class 2.1, waste gasoline is a flammable liquid and falls under class 3, and corrosive wastes falls under class 8; therefore, they are hazardous waste.

Domestic sewage is specifically excluded from the definition of hazardous waste; however, it does not mean that domestic sewage is not regulated – it is regulated under other regulations such as the Sewerage Regulation and the Municipal Sewage Regulation to name a few.

Animal carcasses are not named in the definition nor are words related to them in the definition; therefore they are not hazardous waste. Someone may say that the animal carcass may be biomedical waste, so you look into the definition of biomedical waste in the same Section 1 of the HW Regulation and find that it does not include (k) waste from animal husbandry or (m) waste controlled in accordance with the *Health of Animals Act*.

Please note that when a waste is specifically stated in the definition of hazardous waste (e.g. asbestos, leachable toxic waste) in the provincial regulation, then this waste is hazardous waste in B.C.

It *may seem that there was a lot of things to look at, and that it would take a lot of time to answer just one question. However, it is just perception; the thinking process is much faster than reading and writing. If you are familiar with the definition of "hazardous waste" and know where to find the information – because you have "seen" it before – it should not take as long as it might seem*.

Example 3: The following are some of the actions a carrier must take when a spill occurs. Which one is not correct?

A. Report the spill immediately to the Provincial Emergency Program (PEP)
B. When safe to do so, the driver must contain and minimize the effects of the spill
C. If there is no effect or damage caused in a spill and the spill was contained and cleaned up, the driver may choose not to report the spill to PEP

D. Reporting of a spill may mean to call not only PEP but also the local police and health authorities.
E. Some of the information to be provided to PEP are: contact information of the person who caused the spill, location and time, causes and effect of spill, type and quantity of substance spilled.

Comments: The answer is “C”. Even if the driver believes and it is true that there was no effect or damage caused by the spill, there is a minimum quantity of substance spilled that must be reported. It is not the choice of the carrier to report the spill or not, he/she **must** report if the quantity released is equal or above the quantity stated in the table found in the Schedule of the Spill Reporting Regulation. The quantities vary for different materials and were determined based on risks and/or possible health and environmental effects. The Spill Reporting Regulation is not only for dangerous goods as defined in the federal TDG Regulation, it is also for hazardous wastes and other substances that can cause pollution. Drivers transporting in BC must know the minimum reportable quantities for the wastes they transport as part of their compliance and responsibility.

How will I know my results and what are the next steps?

The passing grade is 70% for the general test and 80% for each of the waste-specific tests. The answer sheet is sent to the Ministry office in Victoria for marking. The results are reported by telephone or email to the carrier or the contact person named in the application, usually within 5 business days.

If an applicant does not pass the test on the first attempt, a second attempt may be attempted as soon as appropriate arrangements can be made with the ministry or the external proctor. Second attempts involve a new test with a different set of questions covering the same range of topics.

Disclaimer
This document does not supersede or replace the *Environmental Management Act* or its regulations; in the case of omissions or discrepancies, the *Act* and its regulations apply. It is intended for guidance only.