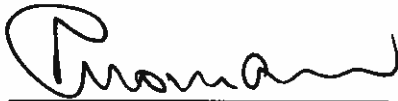



Complete Program Title: Transportation of Dangerous Goods Program	Risk Management Manual (RMM) Number: 505
Approved by:  Vice-President, Administration  President and Vice-Chancellor	Date of Most Recent Approval: November 2019
Date of Original Approval: November 2001	Supersedes/Amends Program dated: July 2009
Responsible Executive: Vice-President, Administration	Enquiries: Environmental and Occupational Health Support Services (EOHSS) ehss@mcmaster.ca
DISCLAIMER: <i>If there is a discrepancy between this electronic program and the written copy held by the program owner, the written copy prevails.</i>	

1 PURPOSE

- 1.1 To ensure parties on campus and remote locations are aware of the safe offering for transport and the receiving of Dangerous Goods in compliance with the Transportation of Dangerous Goods Act and Regulations and the International Air Transport Association Dangerous Goods Regulations.

2 SCOPE

- 2.1 All persons who may be involved in the shipping, handling and/or receiving of a dangerous good as defined in Appendix 1.

3 Related Documents

- 3.1 Transportation of Dangerous Goods Act and Regulations R.R.O. 1992
- 3.2 International Air Transport Association (IATA) Dangerous Goods Regulations
- 3.3 Canadian Nuclear Safety Commission (CNSC) Packaging and Transport of Nuclear Substances Regulation, 2015 International Atomic Energy Commission
- 3.4 Nuclear Safety and Control Act
- 3.5 McMaster Emergency Response Guidebook

4 DEFINITIONS

- 4.1 **DGR Coordinator** – a DGR Coordinator is someone who has taken the ICC Compliance Training for the TDG (Ground) and the IATA Regulations (Air).
- 4.2 **ICC Compliance Center** - a 3rd party service provider who specializes in the training for regulatory compliance in transportation and workplace safety, specializing in labeling, packaging, training and consulting.
- 4.3 **Material Transfer Agreements (MTA)** - a contract that governs the transfer of one or more biological and other materials between institutions (non-profit and for profit) for research purposes. These materials may include cultures, cell lines, plasmids, nucleotides, proteins, bacteria, transgenic animals, pharmaceuticals and other chemicals.
- 4.4 **Consignor/shipper** – a person who offers a package to a carrier.
- 4.5 **Consignee** – a person who receives or is intended to receive a package from a carrier.
- 4.6 **Dangerous Goods** - articles or substances which are capable of posing a hazard to health, safety, property or the environment and which are shown in the hazard classes found in Appendix 1.
- 4.7 **Carrier** – a person who has possession of dangerous goods during transport.
- 4.8 **Approved Packaging Material** – packaging materials which have been tested and meet the requirements of the TDG and IATA Regulations.
- 4.9 **Hazard Labeling/Placards** – labels/placards which easily identify the hazards or dangers of materials that are contained in a package or on a vehicle.
- 4.10 **Release** - (a) a discharge, emission, explosion, outgassing or other escape of dangerous goods, or any component or compound evolving from dangerous goods, from a means of containment being used to handle or transport the dangerous goods, or (b) an emission, from a means of containment being used to handle or transport dangerous goods, of ionizing radiation that exceeds a level or limit established under the Nuclear Safety and Control Act.
- 4.11 **Handling** – loading, unloading, packing or unpacking of dangerous goods in a means of containment for the purposes of, in the course of or the following transportation and includes storing them in the course of transportation.
- 4.12 **Acronyms:**
- TDG** – Transportation of Dangerous Goods (Ground)
 - EOHSS** – Environmental and Occupational Health Support Services
 - FHSSO** – Faculty of Health Sciences Safety Office
 - IATA** – International Air Transport Association (Air)
 - SDS** – Safety Data Sheet
 - MTA** – Material Transfer Agreement

5 RESPONSIBILITIES

- **Role of Chair / Director:** Department Chairs / Directors will support and direct the required procedures to ensure compliance with the Regulations, both TDG and IATA.
- **Role of Supervisors:** To ensure that all staff reporting to them who are or could be involved in the shipping, handling and/or receiving of dangerous goods are trained and certified as prescribed by TDG and IATA Regulations.
- **Role of Purchasing Resources Department:** Provide services to ensure compliance with the Ministry of Transport for the offering of Dangerous Goods for Transport to the McMaster University campus and remote locations in compliance with TDG and IATA Regulations.
- **Role of Facilities Services:** Provide hazardous materials shipping, handling, receiving and on-site transportation in compliance with TDG and IATA Regulations.
- **Role of EOHSS and FHSSO:** Provide training, consultation, procedures and audit services to ensure McMaster University compliance with the TDG and IATA Regulations. Annually review the TDG program to ensure it is accurate to regulatory requirements.
- **Role of DGR Coordinators:** Complete the appropriate documentation, provide the appropriate hazard labels, ensure the packaging meets the requirements as found in TDG or IATA Regulations.
- **Role of Consignor:** The consignor (i.e. shipper) must ensure that:
 - i) The goods are properly classified, packaged, labeled, marked and include SDS if necessary;
 - ii) The Air Waybill or Bill of Lading contains all information required by the TDG or IATA Regulations depending on mode of transport;
 - iii) If placards are necessary for the consignment, they are supplied and placed on the vehicle before it is loaded. Most carriers will have the correct placards as they know about the dangerous goods shipment prior to pick up;
 - iv) The carrier is given a signed and dated copy of the shipping documents, either the Air Waybill or Bill of Lading, and if needed the Shippers Declaration. The shipping invoice which will be a Commercial or Pro Forma invoice is required when shipping internationally;
 - v) A copy of the Air Waybill or Bill of Lading, a copy of the Shippers Declaration and/or the Commercial or Pro Forma invoice will be maintained on file for 6+ current year.
- **Role of Carrier:** The carrier must ensure that:
 - i) The consignor/shipper presents a shipping document that is complete and correct, and is dated and signed and the shipping description on the shipping document is consistent with the safety marks displayed on the container;
 - ii) The vehicle or container is checked before accepting it to make sure that it is in good condition for transport;
 - iii) The placards are displayed on the vehicle or containers before the dangerous goods are loaded. They must be visible on all four sides and displayed until all dangerous goods are removed from the vehicle;

- v) The shipping document is always accessible. On the road, leave the document in the pocket of the driver's door or on the seat beside the driver;
- vi) A copy of the shipping document and any additional documents required by the TDG Regulation must be retained for a period of two years;
- vii) Their TDG training is current.
- **Role of Consignee:** The consignee (i.e. receiver) must ensure that:
 - i) The shipment is unloaded safely;
 - ii) In the event of a release, requirements of the TDG or the IATA Regulations are to be met;
 - iii) The supplier is notified if dangerous goods received are not in compliance with TDG or IATA Regulations;
 - iv) Their training is current to receive dangerous goods as identified in Appendix 1.

6 PROCEDURES

6.1 Shipping / Receiving / Transporting / Classifying Dangerous Goods:

- Only McMaster University approved employees who are TDG and IATA trained and certified are authorized to be agents of the University for the purpose of TDG Regulations, all TDG trained persons shall be re-certified every three years, as required by TDG Regulations.
- For the purposes of IATA Regulations, all IATA trained employees must receive training every 2 years per IATA Regulations.
- Persons intending to offer for transport dangerous goods from McMaster campus or the Faculty of Health Sciences (i.e. the consignor) will complete a "Dangerous Goods Customs & Invoice Request Form" (See Appendix 3) and forward it to the DGR Coordinator in the Purchasing Department, Customs and Traffic Office. Any Material Transfer Agreement must be in compliance with the McMaster Industry Liaison Office.

NB. The consignor will follow precisely the instructions provided by the DGR Coordinator.

- The following offices have been designated as the primary contacts for coordinating the shipping, receiving, transporting and classifying of dangerous goods:
 - i) The Customs and Traffic Office, One James North Room # 320 (Ext. 23084) for all McMaster related Dangerous Goods activities. This office is certified and has trained staff that will provide the appropriate advice, documentation and labels for the transportation of dangerous goods.
 - ii) The Facilities Services Logistics Office (Ext. 24512). This office has certified TDG and IATA trained staff to receive and transport dangerous goods on campus.

- iii) The Health Physics Office (Ext. 24226) for shipments of materials regulated under the Nuclear Safety and Control Act (See Appendix. 1).
 - iv) The University Biosafety Officer (Ext. 23453) for consultation on shipments involving materials regulated under the Human Pathogens and Toxins Act, the Health of Animals Act and the Plant Protection Act.
 - v) EOHSS (Ext. 24352) or FHSSO (Ext. 24956) for consultation on shipments involving chemical and biomedical waste.
- Departments that ship, handle, transport or receive dangerous goods shall identify secure areas for the shipping and receiving of such goods.
 - Departments having direct involvement in the shipping of hazardous waste will maintain an appropriate number of staff who are TDG trained for the purpose of shipping hazardous waste.
 - Persons receiving dangerous goods (i.e. the consignee) will:
 - i) Unload shipments carefully and report any accidental releases to EOHSS or FHSSO.
 - ii) Notify the supplier, Customs and Traffic and EOHSS in the event of dangerous goods shipments received that are not in compliance with TDG and IATA Regulations and supply applicable documentation if requested.

6.2 Emergency Procedures & Incident Reporting:

- Call Security Services Ext. 88 or 905-522-4135 on campus and Ext. 5555 in the McMaster University Medical Centre for emergencies involving dangerous goods (e.g. fire, explosion, spill, etc.).
- All incidents involving dangerous goods on campus (e.g. improperly packaged or labeled goods, improper documents, damaged containers, etc.) must be reported to EOHSS Ext. 24352. After hours contact Security Services.
- CANUTEC (Canadian Transport Emergency Centre): This Centre is operated by Transport Canada to assist emergency response personnel in handling dangerous good emergencies. Federal regulations require that CANUTEC must be contacted in the event of an incident or accident involving radioactive materials or infectious substances. This is in addition to any reporting that must be done by provincial or municipal statutes. The information number is (613) 996-6666.
- CHEMTREC: A service of the Chemical Manufacturers Association, provides emergency response personnel with immediate access to information and expert assistance for handling hazardous materials incidents. The information number is (800) 424-9300.

RECORDS

7.1 Retention:

- Copies of all TDG and IATA related shipping documents will be kept for a minimum of 6+ current year.

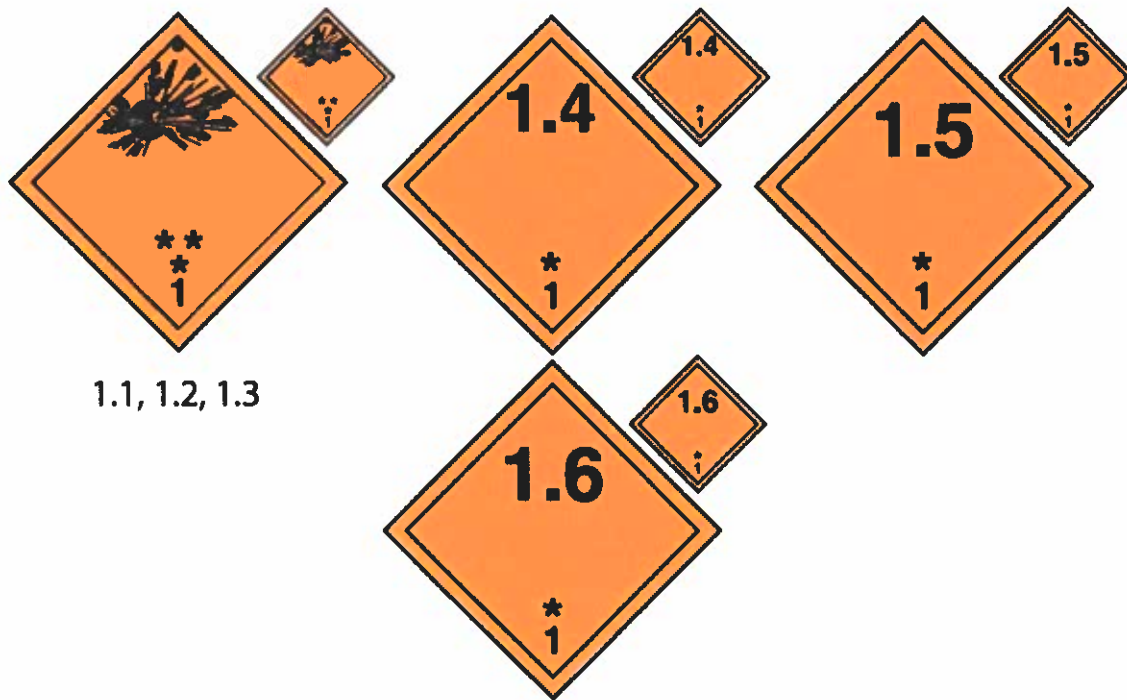
- 7.2 Filing: Copies of TDG and IATA related shipping documents will be kept by:
- The DGR Coordinator responsible for coordinating the shipment.
 - EOHSS or FHSSO for the shipment of hazardous waste.
 - Facilities Services for shipments of materials regulated under the Nuclear Safety and Control Act.
- 7.3 Training Records:
- EOHSS will maintain a TDG and IATA training record database.
- 7.4 Auditing:
- EOHSS or FHSSO may select a department on a random basis to audit their TDG and IATA activities for compliance.

Appendix 1

Classification of Dangerous Goods

Hazardous Materials are placed in one of nine classes of dangerous goods depending on hazard characteristics. Classes are further subdivided into divisions:

Class 1 Explosives:



1.1, 1.2, 1.3

**** Place for Division**
*** Compatibility Group**

Appendix 1 (Continued)

Class 2 Gases:



Class 3 Flammable Liquids:



Class 4 Flammable Solids:



S-13915



S-13916



S-13917

Appendix 1 (Continued)

Class 5 Oxidizing Substances and Organic Peroxides:



Class 6 Toxic and Infectious Substances:



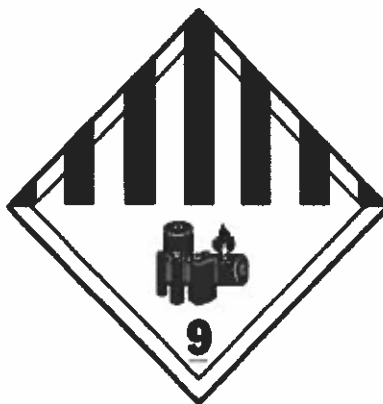
Class 7 Radioactive Materials:



Class 8 Corrosive Substances:



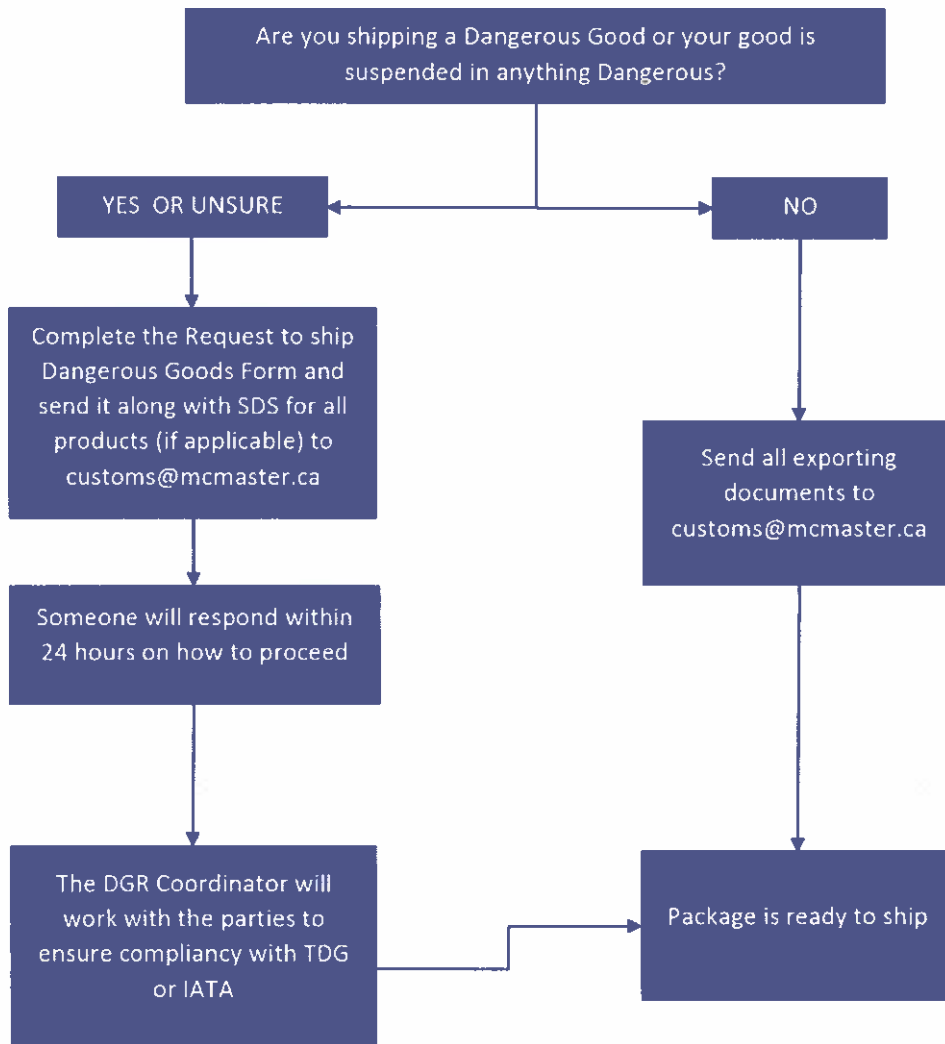
Class 9 Miscellaneous: Dangerous Goods – Lithium Batteries – Dry Ice



Shipper's Declaration for Regulated		Ameyo-ekateribe must have the following	
Part B is required		1. "Dangerous Goods" Shipper's Declaration not required	
Dry Ice amount must be in kilograms		2. Dry Ice, UN 1845	
Note: 25kg = 1 kg		3. _____ kg 954 kg	
		_____ kg	
Dry Ice, kg.		UN 1845	
Shipper's Name and Address		Consignee Name and Address	
_____		_____	
_____		_____	
Printed by SDS Inc.		4475-210	

Appendix 2

Steps to follow before offering a Dangerous Good shipment to the carrier (This is for information purposes only. Contact Customs and Traffic for more specific details).



Appendix 3

DANGEROUS GOODS/CUSTOMS INVOICE REQUEST FORM P. 1 of 2
(FAX REQUEST TO 905-529-0433)

1. **DANGEROUS GOODS** are articles or substances that are capable of posing a risk to **HEALTH, LIFE, PROPERTY** and/or the **ENVIRONMENT** when transported as defined under **TDG OR IATA REGULATIONS**.
2. **SDS MUST** be provided to our office by **SHIPPER – SDS SOURCES**:
<http://ccinfoweb.ccohs.ca/>
www.mcmaster.ca/riskmanagement/
contact manufacturer www.atcc.org/
3. Whenever possible, please allow **24 hours** from date of request for preparation of documentation.
4. Only **McMaster University employees KNOWLEDGEABLE** in the goods which are being offered for transport are permitted to complete and sign off on the form listed below.
5. All dangerous goods shipments **MUST** be inspected by the Customs and Traffic office **PRIOR** to transport.
6. Refer to “Decision to ship Goods” flow chart attached.

SECTION A Purpose: Shipping **DANGEROUS GOODS ONLY**

Date: _____ Anticipated Ship Date: _____

Does shipment contain:

CHEMICALS _____ **BIOLOGICALS** _____ or **BOTH?** _____ (CHECK ONE)

Does shipment contain **EQUIPMENT** which has been in contact with **CHEMICALS / BIOLOGICALS**?

Yes _____ or No _____?

If yes, what exactly? _____

Does it still contain remnants of the Chemical or Biological reagent? Yes _____ or No _____

Does the shipment contain **Lithium Ion or Lithium Polymer Cells and Batteries** or the equipment contain **Lithium Ion or Lithium Polymer Cells and Batteries**?

Is there an SDS for this sample? _____ **NO** _____ **YES**

i) If **NO**, LIST **CHEMICAL PROPERTIES** _____

ii) If **NO**, to the **BEST OF YOUR KNOWLEDGE, IS THIS SAMPLE CONSIDERED A DANGEROUS GOOD?** _____

If Yes, what is the **Primary Hazard?** _____

Proper **SHIPPING NAME/ TECHNICAL NAME** _____

Type of **PRIMARY VESSEL?** _____ Type of **PRIMARY VESSEL CLOSURE** (what will the primary vessel be contained in)? _____

For **LIQUIDS**, % of **ULLAGE** (Quantity by which a container falls short of being full) _____

Type of **ABSORBENT PACKING** _____ Type of **OUTER PACKAGING** _____

Does this shipment require **Dry Ice**? If so, what amount in kg? _____ Note, **Dry Ice** sublimates at approx. 2kg a day.

EXPORT PERMITS required? None _____



Canadian Food Inspection Agency (Plant/Animal Diseases) _____

Health & Welfare Canada (Human Diseases) _____

Controlled Drugs _____

Radioactive (Contact HEALTH PHYSICS EXT 24226)

(SHIPPER is responsible for obtaining appropriate permits and MUST provide a COPY OF THE PERMIT(S)
ALONG WITH THIS REQUEST.)

**“ I DECLARE THAT THE ABOVE INFORMATION IS ACCURATE AND I ACCEPT FULL
RESPONSIBILITY FOR THE INFORMATION PROVIDED.” (Signature MUST be of the
RESEARCHER/TECHNICIAN)**

NAME (please print) _____

SIGNATURE _____

TITLE OF SIGNATORY _____

DATE _____

