The Hazardous Materials Emergency Response Plan (Plan) was prepared by the Hazardous Materials Emergency Response Planning Committee, a sub-committee of the Emergency Management Committee. Please contact the Environmental Health and Safety Department, at either 778-782-7264 or ehs_sfu@sfu.ca, to update the contact information provided in this plan or to obtain additional information about the Plan.

The plan was last updated on January 23, 2008.
Hazardous Materials Emergency Response Plan Activation
Quick Reference

Campus Security Receives Notice of an Incident

1. Information is collected by Campus Security using the Hazardous Material Incident Report Form.

2. Campus Security calls the appropriate emergency response agencies.

3. The Emergency Response Team is notified by Campus Security.

4. The Material Safety Data Sheets for the released materials are secured by EHS.

The Level of Response is Determined

5. A decision is made by the Emergency Response Team, in consultation with the Campus Security Supervisor, regarding the appropriate level of response.

The Plan is Activated

6. If the level of response is determined to be a 2 or greater, entry into the affected area is unsafe. The plan is activated.

Notifications are made

7. The Incident Commander (Campus Security Supervisor), or designate, makes the appropriate internal notifications. EHS and Campus Security notify the appropriate external agencies.

Response

8. Campus Security coordinates the evacuation of the affected area / building.

9. The Incident Command Post is established.

10. The Emergency Response Team conducts a risk assessment to identify the hazards and risks involved in responding to the emergency situation.

11. First aid and assembly areas are established.

12. The Fire Department Chief assumes command once he/she arrives at the scene.

13. Necessary information is relayed to the Fire Department by the Campus Security Supervisor, such as information about the nature of the released hazardous material(s) and the number of injured persons.

14. The Emergency Response Team provides assistance to the Fire Department in developing measures for assuring personnel safety while responding to the incident.

16. After assessing the level of risk and determining that it is safe, the Fire Department will enter the affected area to remove individuals requiring rescue and will provide first aid as required.

17. The release is contained by the Fire Department.

Clean-up & Recovery

18. Clean-up will proceed in consultation with the appropriate parties.

19. Incident/accident report is completed and persons involved in the response attend a debriefing.
Hazardous Material Incident Report Form

Campus Security will collect the following information upon receiving notice of an incident involving hazardous materials.

<table>
<thead>
<tr>
<th>Incident Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Requirement for First Aid:</td>
</tr>
<tr>
<td>a) Are there injuries?</td>
</tr>
<tr>
<td>b) Are there incapacitated persons that cannot leave the area?</td>
</tr>
<tr>
<td>2. Person reporting the incident:</td>
</tr>
<tr>
<td>Name:</td>
</tr>
<tr>
<td>Contact numbers: Office:</td>
</tr>
<tr>
<td>Cell/home:</td>
</tr>
<tr>
<td>Email:</td>
</tr>
<tr>
<td>Present location:</td>
</tr>
<tr>
<td>3. Principal Investigator (P.I) or Supervisor responsible for the room/area involved in the incident:</td>
</tr>
<tr>
<td>Name:</td>
</tr>
<tr>
<td>Contact numbers: Office:</td>
</tr>
<tr>
<td>Cell/home:</td>
</tr>
<tr>
<td>Email:</td>
</tr>
<tr>
<td>Present location:</td>
</tr>
<tr>
<td>Has the P.I or Supervisor been called? Yes/No</td>
</tr>
<tr>
<td>4. Location of the incident:</td>
</tr>
<tr>
<td>5. Further description of the incident location and surrounding area:</td>
</tr>
<tr>
<td>a) Has the area been cordoned off and/or evacuated?</td>
</tr>
<tr>
<td>b) Was the fire alarm pulled?</td>
</tr>
<tr>
<td>6. Time of incident:</td>
</tr>
<tr>
<td>7. Type of substance released. Is it a liquid, solid or gas? Is it a mixture?</td>
</tr>
<tr>
<td>8. Are radioactive or biological materials involved in the release?</td>
</tr>
<tr>
<td>9. Quantity released:</td>
</tr>
<tr>
<td>10. Is the release contained (is it ongoing or spreading)?</td>
</tr>
<tr>
<td>11. The type of container that the hazardous material was/is contained in and its current condition.</td>
</tr>
</tbody>
</table>
# Hazardous Materials Emergencies: Response Levels and Remedial Approach

<table>
<thead>
<tr>
<th>Levels of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1 (Minor Incident)</strong></td>
</tr>
<tr>
<td><strong>Criteria</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Potential Response Measures</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Lead Response Agencies/staff</strong></td>
</tr>
<tr>
<td><strong>Command</strong></td>
</tr>
<tr>
<td><strong>Emergency Operations Centre (EOC) Activation</strong></td>
</tr>
</tbody>
</table>
### Table of Contents

1.0 INTRODUCTION ................................................................................................................................. 2  
  1.1 Purpose .............................................................................................................................................. 2  
  1.2 Scope .................................................................................................................................................. 2  
  1.3 Priorities ............................................................................................................................................. 3  
  1.4 Program Structure and Management .............................................................................................. 3  

2.0 NOTIFICATION AND ALERTING ........................................................................................................... 4  
  2.1 Reporting the Incident ....................................................................................................................... 4  
  2.2 Activating the Plan ............................................................................................................................. 4  
  2.3 Emergency Response Team ............................................................................................................... 5  
  2.4 Internal Call-Out List ......................................................................................................................... 5  
  2.5 External Notification Requirements ................................................................................................. 6  

3.0 RESPONSE ............................................................................................................................................ 7  
  3.1 Levels of Response ............................................................................................................................. 7  
  3.2 Response Organization ....................................................................................................................... 8  
  3.3 Response Procedures ......................................................................................................................... 10  
  3.4 Clean-up and Monitoring ................................................................................................................... 14  
  3.5 Incident Debriefing ............................................................................................................................. 15  

4.0 MANAGING THE PLAN ......................................................................................................................... 15  
  4.1 Updates, Additions and Modifications .............................................................................................. 15  
  4.2 Training and Education ...................................................................................................................... 15  
  4.3 Exercising the Plan ............................................................................................................................ 16  

APPENDICES .................................................................................................................................................. 17  
  Appendix A: Emergency Response Team ............................................................................................... 18  
  Appendix B: Internal Contact List .......................................................................................................... 19  
  Appendix C1: Radioactive Spill Response Procedures .......................................................................... 21  
  Appendix C2: Chemical Spill Response Procedures ............................................................................ 23  
  Appendix C3: Biohazard Spill Response Procedures ........................................................................... 25  
  Appendix C4: Oil and Diesel Fuel Spill Response Procedures .............................................................. 26  
  Appendix D: SFU Protocol on Biohazard Event Notification .............................................................. 27  
  Appendix E: Responsibilities of Emergency Response Team Members ............................................. 29  
  Appendix F: Reportable Amounts of Spilled Substances to the Provincial Emergency Program (PEP) and the City of Burnaby ............................................................................. 36  
  Appendix G: Transportation of Dangerous Goods Classes ................................................................... 37  
  Appendix H: Clean-up & Recovery Contractors .................................................................................... 38
1.0 INTRODUCTION

Simon Fraser University has grown significantly in the last ten years. As existing departments expand and new departments are created, the amount of hazardous materials used and produced on the Burnaby campus has increased in both quantity and variety. For example, there are numerous chemical, radioactive and biological materials used throughout the Faculties of Science and Applied Science in both research and teaching. There are chemicals, paints, dyes and solvents used in the Faculty of Arts, in addition to oils, lubricants and transmission fluids in Facilities Services. There are also fuel dispensing stations and several fuel storage tanks, both above and below ground, across campus. Since spillage or release of these hazardous materials is always a possibility, it is essential to have a plan in place in order to safely respond to these incidents.

1.1 Purpose

The purpose of the Hazardous Materials Emergency Response Plan is to provide a strategy for planning for, responding to, and recovering from emergencies involving hazardous materials. The plan assesses risks, assigns roles and responsibilities, and outlines steps to be followed in emergency situations.

1.2 Scope

The Hazardous Materials Emergency Response Plan applies to incidents involving the release\(^1\) of hazardous materials at the Burnaby campus of Simon Fraser University. A hazardous material is defined as any material that, because of its quantity, concentration, or physical or chemical characteristics, may adversely affect human or environmental health. Hazardous materials include, but are not limited to, dangerous goods as defined by the Transportation of Dangerous Goods Act.

The plan does not address hazardous materials incidents that arise off campus or in areas not identified as SFU property. If such an incident occurs and it has the potential to adversely affect SFU students and staff, the SFU Emergency Plan may be activated. If evacuation of campus is required, the University’s evacuation procedures will be followed.

For major emergencies that involve numerous incidents across campus, such as an earthquake that causes fires, structural collapses and releases of hazardous material, the SFU Emergency Plan will be activated. An Emergency Operations Centre (EOC) will be set up to manage the incident command posts at each incident site. The Hazardous Materials Emergency Response Plan will then be

\(^1\) Release may include spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, vaporizing, fuming, combusting, leaching, dumping or disposing into the environment.
activated at each incident site(s) involving hazardous materials. The Incident Commander (Campus Security Supervisor) at these sites will be responsible for relaying information about the hazardous material incidents to the EOC.

1.3 Priorities

In an emergency situation involving hazardous materials, SFU’s priorities are:

- To provide for the health and safety of all responders
- To save lives
- To reduce suffering
- To protect property and infrastructure
- To restore university operations
- To protect the environment
- To reduce socioeconomic losses.

1.4 Program Structure and Management

There is an Emergency Plan in place at Simon Fraser University. In addition, there are spill response procedures for responding to incidents involving chemical, biological and radiological materials. The Hazardous Materials Emergency Response Plan is not intended to replace these plans and procedures, but rather to expand on them and provide more detailed directions and a consistent approach for responding to emergency situations involving hazardous materials.

The Hazardous Materials Emergency Response Plan is compatible with and supportive of the British Columbia Emergency Response Management System (BCERMS). The Incident Command System (ICS) will be used to manage the response to a hazardous materials emergency.
NOTIFICATION AND ALERTING

2.1 Reporting the Incident

All hazardous materials incidents must be reported to a supervisor or appropriate designate (i.e., Principal Investigator, Lab Coordinator, Radiation Safety Officer\textsuperscript{2}, or Biosafety Officer) as soon as possible. Campus Security must be contacted if (i) the supervisor or designate cannot be contacted; and/or (ii) the individuals at the site are unable to contain the release; and/or (iii) there are injuries and/or the release presents a danger to human health, the environment and/or property (i.e., a level 2 or 3 response).

Detailed information about the incident, including the number and severity of injured persons, the quantity and identity of the released material, and the incident location must be provided to Campus Security. The individual(s) responsible for the release and their supervisor or designate, will then meet Campus Security outside of the affected area, or at the building’s annunciator panel if evacuation of the building is required.

For incidents involving radioactive materials, the individual(s) responsible for the spill must immediately contact his/her Supervisor and the Radiation Safety Office. If there are injured persons, then Campus Security should be contacted. If anyone is in immediate physical danger then the area should be evacuated and Campus Security should be contacted.

If Campus Security personnel discover a hazardous material release during their routine patrol of campus, they should notify the Campus Security Supervisor immediately. The Campus Security Supervisor will contact the individual(s) responsible for the room/area where the release was observed (listed on the door hazard sign). The Campus Security Supervisor will then access the door signage database to obtain more information about the hazardous material(s) present in the area.

2.2 Activating the Plan

When Campus Security receives notice of an incident involving hazardous materials, the appropriate emergency response agencies will be contacted. The Emergency Response Team will be called out. Information about the release will be collected and documented on the Hazardous Material Incident Report Form. The Environmental Health and Safety Department will obtain the Material Safety Data Sheet (MSDS) for the released material by accessing the Canadian Centre

\textsuperscript{2} Please refer to Page 3 for instructions in reporting incidents involving radioactive materials.
for Occupational Health and Safety (CCOHS) database\(^3\). If the MSDS is not accessible, information about the released material will be obtained by contacting CANUTEC (see section 2.5).

If the release occurs in a laboratory, information about the other hazardous materials present in the lab can be obtained by contacting the emergency contacts listed on the door hazard sign and by accessing the door signage database. Based on this information, a decision will be made by the Emergency Response Team, in consultation with the Campus Security Supervisor, regarding the appropriate level of response.

If the level of response is determined to be a 2 or greater, the Hazardous Materials Emergency Response Plan is activated by the Campus Security Supervisor, who then becomes the Incident Commander. The Emergency Response Team will be called out and an Incident Command Post will be established.

2.3 Emergency Response Team

The Emergency Response Team consists of representatives from Security Patrol, Environmental Health and Safety, Radiation Safety (for incidents involving radioactive materials), Facilities Services, a Departmental contact and the Area/Location Emergency contact person(s) listed on the door hazard sign of the room/area involved in the incident, if applicable. A call-out list is provided in Appendix A.

Before any response actions are taken, the Emergency Response team will assess the information collected on the Hazardous Material Incident Report Form and will determine the appropriate level of response.

2.4 Internal Call-Out List

The Incident Commander, or designate, is responsible for notifying the following individuals and departments, as appropriate, in the order provided. The emergency contact phone numbers for these individuals are provided in Appendix B.

a) Vice President, Finance and Administration
b) Vice President, Research
c) Public Affairs and Media Relations (PAMR)

Using its normal protocols and Emergency Communications Plan, in consultation with the Incident Commander, PAMR will (as warranted) alert and update the SFU Community. PARM will also (again as warranted) alert and update the general public via the news media and the appropriate SFU website(s).

\(^3\) [http://ccinfoweb.ccohs.ca/msds/search.html](http://ccinfoweb.ccohs.ca/msds/search.html)
2.5 **External Notification Requirements**

Campus Security and the Environmental Health and Safety Department are also responsible for ensuring the necessary external notifications are made. The following table identifies the external agencies that may need to be notified of an incident involving hazardous materials. The departments listed in the table, adjacent to each agency, are responsible for contacting that agency, if deemed appropriate.

<table>
<thead>
<tr>
<th>Agency</th>
<th>Responsibility</th>
<th>Phone number</th>
<th>Conditions for Notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Transport Emergency Centre (CANUTEC)</td>
<td>EH&amp;S</td>
<td>Emergency: (613) 996-6666 Information: (613) 992-4624</td>
<td>If information regarding the hazardous material(s) is required. CANUTEC can also <strong>recommend actions to be taken</strong>, and those to avoid, in hazardous materials emergencies.</td>
</tr>
<tr>
<td>Provincial Emergency Program (PEP)</td>
<td>EH&amp;S</td>
<td>1-800-663-3456</td>
<td>If the released product type and/or quantity qualify as a <strong>reportable spill</strong> (see Appendix F).</td>
</tr>
<tr>
<td>WorkSafeBC (WCB)</td>
<td>EH&amp;S</td>
<td>M-F: 8:30 - 4:30 1-888-621-7233 After hours: 1-866-922-4357</td>
<td>If a <strong>worker is injured</strong> as a result of the release or during the response, and for all <strong>significant releases which are not contained</strong> within a room.</td>
</tr>
<tr>
<td>Translink</td>
<td>Campus Security</td>
<td>604-453-4500</td>
<td>If the release has the potential to impact <strong>transit routes</strong>.</td>
</tr>
<tr>
<td>City of Burnaby (Environmental Emergencies)</td>
<td>EHS</td>
<td>Emergency: 604-294-7200 Non-emergency 604-294-7460</td>
<td>If the release qualifies as a <strong>reportable spill</strong> (see Appendix F) and it will impact the <strong>storm sewers</strong>.</td>
</tr>
<tr>
<td>Department of Fisheries and Oceans</td>
<td>EHS</td>
<td>604-666-0384</td>
<td>If the release has the potential to impact the <strong>marine environment</strong>.</td>
</tr>
<tr>
<td>Greater Vancouver Regional District (GVRD)</td>
<td>EHS</td>
<td>604-432-6200 After hours emergency: 604-444-8401</td>
<td>If there is a release of a prohibited waste or restricted waste to the <strong>sanitary sewer</strong>.</td>
</tr>
<tr>
<td>Canadian Nuclear Safety Commission</td>
<td>Radiation Safety Office</td>
<td>(613) 995-0479</td>
<td>For all incidents involving <strong>radioactive materials</strong>.</td>
</tr>
</tbody>
</table>
3.0 RESPONSE

3.1 Levels of Response

The Hazardous Materials Emergency Response Plan defines three levels of response depending on the magnitude of the incident and the degree of containment of the released material. A level 1 response can be managed by the individuals responsible for the release. A level 2 and level 3 response requires assistance from external agencies and personnel. The plan will be activated for level 2 and 3 responses.

The Emergency Response Team will review any available information about the released material(s), including the information collected on the Hazardous Materials Incident Report Form, and will determine the appropriate level of response.

LEVEL 1 – Minor Incident

The identity of the released material is known. There is no perceived adverse impact on health, property, or the environment. Containment is within the capabilities of the department or individuals involved. Evacuation of affected buildings/areas is not required. An outside agency or campus department may be involved as a precaution or as part of standard University procedures. The spill response procedures provided in Appendix C are followed.

Examples:

- A small chemical spill or release.
- A spill of radioactive material that is confined to a room.
- A small fuel overflow while re-fueling campus trucks.

LEVEL 2 – Moderate Incident

The identity of the released material may or may not be known. There is potential for an adverse impact on health, property, or the environment. Containment is beyond the capabilities of University employees. Evacuation of a single area/building is required. Resolution of the incident requires the assistance of outside agency personnel.

Examples:

- A spill that involves significant quantities of toxic, reactive, explosive or life-threatening chemicals.
- An unidentified odour that requires the evacuation of a building or area.
LEVEL 3 – Major Incident

The identity of the released material(s) may or may not be known. There is a severe impact on health, property, or the environment. Several buildings/areas on campus are affected. Containment of the incident requires the assistance of multiple outside agencies and possible activation of the EOC. Extensive evacuation of campus buildings/areas is required. Duration of the event is unpredictable; long term implications may result.

Examples:
- A large explosion in a science laboratory.
- A release of a toxic, odourless gas.
- A spill of radioactive material which is uncontrolled.

3.2 Response Organization
Responsibility for scene control lies with Campus Security. The Security Supervisor at Campus Security becomes the Incident Commander once the plan is activated and he/she arrives on scene. If the incident involves a response by the Burnaby Fire Department, the Fire Chief assumes command once he/she arrives on-scene.

The Emergency Response Team is responsible for collecting additional information about the incident, assessing the hazards associated with the incident, offering services to mitigate these hazards, and assisting the Fire Department in developing procedures for safely responding to the incident.

Emergency Response Team:
Incident Commander

The Campus Security Supervisor, in his/her role as Incident Commander, is in charge of the scene and is responsible for coordination of the overall incident response. The Incident Commander acts as the liaison for emergency response agencies and the EOC, if activated.

Security Patrol

Security Patrol personnel are responsible for the evacuation of the affected area or building, if necessary, and perimeter control around the incident scene. They will escort emergency response agencies to the incident scene and will provide traffic control, if necessary. They may also need to marshal evacuees to designated first aid and assembly areas. Security Patrol personnel are also available to provide Occupational first aid, if required.

Facilities Services

Facilities Services is responsible for providing any necessary utility disconnects, such as the shut down of natural gas or ventilation systems. Facilities Services can also provide detailed building floor plans, if necessary. In addition, Facilities Services has a supply of spill response materials for spills of oil and diesel fuel. These materials can be used to limit the spread of a spill until an external clean-up company can be brought on site to contain and clean up the release.

Environmental Health and Safety and Radiation Safety

The Environmental Health and Safety Department (EHS) and Radiation Safety Office (RSO), if radioactive materials are involved, are responsible for providing guidance regarding the hazards associated with the released material(s). EHS and RSO will help assess hazardous and unsafe conditions and will provide assistance to the Fire Department in developing measures for assuring personnel safety when responding to the incident.

Departmental Contact

The Departmental Contact is responsible for providing information about the room/area involved in the incident, including the individual(s) responsible for that room/area and the general types of hazards that may be present.

Area/ Location Emergency Contact

The Area/ Location Emergency Contact is responsible for providing specific information about the hazardous material(s) involved in the incident, in addition to the identity and location of other hazards that may be present in the affected room/area.
Detailed checklists outlining the responsibilities of each member of the Emergency Response Team are provided in Appendix E.

For level 2 and 3 incidents, SFU’s Public Affairs and Media Relations office (PAMR) will assign a liaison person to the Emergency Response Team. PAMR will join the EOC if one is established.

3.3 Response Procedures

Level 1 Response:

The identity of the released material is known. There is no perceived adverse impact on health, property, or the environment. Containment is within the capabilities of the department or individuals involved. Evacuation of affected buildings/areas is not required. An outside agency or campus department may be involved as a precaution or as part of standard University procedures.

1. The individual(s) or department involved resolves the incident with assistance or advice from the Environmental Health and Safety Department, Radiation Safety Office and/or Facilities Services personnel. Campus Security may or may not be contacted. The spill response procedures provided in Appendix C are followed.

2. An incident report form is completed and submitted to the Environmental Health and Safety Department.

Level 2 Response:

The identity of the released material may or may not be known. There is potential for an adverse impact on health, property, or the environment. Containment is beyond the capabilities of University employees. Evacuation of a single area/building is required. Resolution of the incident requires the assistance of outside agency personnel.

1. Security Patrol personnel respond to the scene and assist with evacuation. Security Patrol personnel must confirm that entry into the affected area is safe prior to entering the area. If determined to be safe, individuals are removed from the affected building/area as quickly and efficiently as possible and marshaled to an assembly area.

2. Security Patrol personnel establish a safety perimeter around the affected area/building. The distance of the safety perimeter will be determined by the Emergency Response Team and will depend on the nature and quantity of the released materials, weather conditions and the area where the incident occurred. Expansion of the safety perimeter
may be necessary as more information becomes available about the incident.

3. An Incident Command Post is established outside of the affected area/building and the Incident Commander ensures the necessary internal notifications are made (see section 2.3 and 2.4).

4. The Emergency Response Team responds to the Incident Command Post and conducts a risk assessment based on the following:

   - Information collected on the Hazardous Material Incident Report Form,
   - Information provided on the MSDS of the material(s) involved in the incident,
   - Information about the other hazards present in the room/area,
   - The number of people affected or potentially affected by the incident.
   - The location, time and weather conditions.

5. The Incident Commander establishes first aid and assembly areas in a safe location.

6. Facilities Services provides any necessary utility disconnects, as required. They may also provide building floor plans to assist the Fire Department in responding to the incident.

7. Emergency personnel from the Fire Department and other responding agencies are met by the Incident Commander and critical information about the incident is relayed. Command is assumed by the Fire Department Chief.

8. Control zones are set up by the Fire Department

   a) **Hot Zone:** This area is a restricted zone. It presents an immediate danger to life and health and should only be entered by the Fire Department Hazmat team, or other authorized response agencies, equipped with appropriate personal protective equipment, such as self-contained breathing apparatus (SCBAs).

   b) **Warm Zone:** This area is a limited access zone. It serves as a staging area for support personnel and equipment. Decontamination of exposed individuals is conducted in this zone. This zone is restricted to essential personnel.
c) **Cold Zone:** This area is a support zone. The Incident Command Post is located in this zone. The first aid and assembly areas may also be located in this zone.

9. The Fire Department reviews the hazardous materials information and the building Fire Safety Plan with the Emergency Response Team. The Emergency Response Team provides assistance to the Fire Department in developing measures for assuring personnel safety when responding to the incident.

10. After assessing the level of risk and determining that it is safe, the Fire Department enters the affected area/building to remove individuals requiring rescue and provides first aid as required.

11. The Fire Department decontaminates exposed individuals.

12. The Fire Department will re-enter the affected area/building to contain the release once all individuals requiring rescue have been removed from the area/building.

**Level 3 Response:**

_The identity of the released material(s) may or may not be known. There is a severe impact on health, property, or the environment. Several buildings/areas on campus are affected. Containment of the incident requires the assistance of multiple outside agencies and possible activation of the EOC. Extensive evacuation of campus buildings/areas is required. Duration of the event is unpredictable; long term implications may result._

1. Security Patrol personnel respond to the scene and assist with evacuation. Security Patrol personnel must confirm that entry into the affected area is safe prior to entering the area. If determined to be safe, individuals are removed from the affected building/area as quickly and efficiently as possible and marshaled to an assembly area.

2. Security Patrol personnel establish a safety perimeter around the affected area/building. The distance of the safety perimeter will be determined by the Emergency Response Team and will depend on the nature and quantity of the released materials, weather conditions and the area where the incident occurred. Expansion of the safety perimeter may be necessary as more information becomes available about the incident.

3. An Incident Command Post is established outside of the affected area/building and the Incident Commander ensures the necessary internal notifications are made (see section 2.3 and 2.4).
4. The Emergency Response Team responds to the Incident Command Post and conducts a risk assessment based on the following:

   a) Information collected on the Hazardous Material Incident Report Form,
   b) Information provided on the MSDS of the material(s) involved in the incident,
   c) Information about the other hazards present in the room/area,
   d) The number of people affected or potentially affected by the incident.
   e) The location, time and weather conditions.

5. Based on the severity of the incident, the Emergency Operations Centre (EOC) may be activated. This decision is made by the Incident Commander and the Director of Campus Security. If the EOC is activated, the Director of the EOC and the Emergency Coordinator must be contacted. The Director of the EOC will determine whether the following steps are necessary:

   a) Establish a communication centre within the EOC to coordinate the flow of information to both internal and external parties.
   b) Notify the Director of Emergency Social Services (ESS). ESS may be necessary to provide post-incident care to those individuals affected by the incident.
   c) Advise the Department Chair/Director regarding the need for alternate locations for long term displacement of labs, classrooms or offices.

6. The Incident Commander is responsible for relaying all information about the incident to the Director of the EOC.

7. The Incident Commander establishes first aid and assembly areas in a safe location.

8. Facilities Services provides any necessary utility disconnects, as required. They may also provide building floor plans to assist the Fire Department in responding to the incident.

9. Emergency personnel from the Fire Department and other responding agencies are met by the Incident Commander and critical information about the incident is relayed. Command is assumed by the Fire Department Chief.
10. Control zones are set up by the Fire Department.

a) **Hot Zone:** This area is a restricted zone. It presents an immediate danger to life and health and should only be entered by the Fire Department Hazmat team, or other authorized response agencies, equipped with appropriate personal protective equipment, such as self-contained breathing apparatus (SCBAs).

b) **Warm Zone:** This area is a limited access zone. It serves as a staging area for support personnel and equipment. Decontamination of exposed individuals is conducted in this zone. This zone is restricted to essential personnel.

c) **Cold Zone:** This area is a support zone. The Incident Command Post is located in this zone. The first aid and assembly areas may also be located in this zone.

11. The Fire Department reviews the hazardous materials information and building Fire Safety Plan(s) with the Emergency Response Team. The Emergency Response Team provides assistance to the Fire Department in developing measures for assuring personnel safety when responding to the incident.

12. After assessing the level of risk and determining that it is safe, the Fire Department enters the affected area/building to remove individuals requiring rescue and provides first aid as required.

13. The Fire Department decontaminates exposed individuals.

14. The Fire Department will re-enter the affected area/building to contain the release once all individuals requiring rescue have been removed from the area/building(s).

3.4 **Clean-up and Monitoring**

Once the release is contained, it is no longer an emergency situation and control is transferred from the Burnaby Fire Department Chief back to the Campus Security Supervisor. At this point, the Environmental Health and Safety Department will make arrangements with a contractor to clean-up and dispose of the contained material(s). A list of contractors is provided in Appendix H. Campus Security will maintain a safety perimeter around the incident scene until it is deemed safe by the Environmental Health and Safety Department to re-enter the affected area.
3.5 Incident Debriefing

The Environmental Health and Safety Department will organize a debriefing session as soon as possible after resolution of the incident. All individuals involved in the response to the incident and members of the Hazardous Materials Emergency Response Planning Sub-Committee will be asked to attend the session.

An incident/accident report will be completed by the supervisor of the individual(s) responsible for the hazardous material release.

4.0 MANAGING THE PLAN

4.1 Updates, Additions and Modifications

The plan will be reviewed and updated by the Hazardous Materials Emergency Response Planning sub-Committee on annual basis, and after any incident requiring activation of the plan. The Environmental Health and Safety Department will review the plan on a regular basis to ensure the emergency contact information is up-to-date.

4.2 Training and Education

The Environmental Health and Safety Department will design and coordinate training about the Hazardous Materials Emergency Response Plan for Campus Security personnel, faculty, researchers and other appropriate SFU staff members.

The Chemical Safety Training sessions conducted each semester will be revised to incorporate an overview of the plan and to outline the responsibilities of students and staff in the event of a hazardous materials incident.

A copy of the plan will be available at Campus Security and in the Environmental Health and Safety Department’s office. The plan will also be made available online through the Environmental Health and Safety Department’s webpage.
4.3 Exercising the Plan

The plan will be exercised on a biennial basis to evaluate the following:

- Familiarity of faculty/staff/students with the plan;
- The practicality of the plan in light of any releases that have occurred on campus;
- Adequacy of training regarding the plan and response procedures;
- Adequacy of communications and interactions among parties;
- Notification and evacuation procedures.

The Environmental Health and Safety Department, in consultation with the Hazardous Materials Emergency Response Planning sub-Committee, will organize and conduct the emergency exercises.
APPENDIX A

Appendix A: Emergency Response Team

Page Intentionally Omitted
APPENDIX B

Appendix B: Internal Contact List

Page Intentionally Omitted
Appendix C: Spill Response Procedures

Appendix C1: Radioactive Spill Response Procedures ........................................ 21
Appendix C2: Chemical Spill Response Procedures ........................................... 23
Appendix C3: Biohazard Spill Response Procedures ......................................... 24
Appendix C4: Oil and Diesel Fuel Spill Response Procedures ......................... 25
Appendix C1: Radioactive Spill Response Procedures

IN CASE OF RADIOACTIVE MATERIAL SPILL

Call for Help
Contain the Spill
Secure the Area to Prevent Further Access

Call for Help
• If you are in immediate physical danger, leave the area; call Campus Security, local 2-4500
• If there are injuries, call Campus Security, local 2-4500
• Call co-worker, lab supervisor, and the Radiation Safety Office for assistance. You MUST contact the Radiation Safety Office, even if the spill occurs after hours:
  Radiation Safety Office Contact Information:
  Kate Scheel 778-782-3633 home: 604-882-8607 cell: 604-761-7998

Contain the Spill
• Check for contamination on yourself or your co-worker.
• Remove contaminated clothing and place in a plastic bag. Paper suits are available from the Radiation Safety Office.
• Wear lab coat and two pairs of gloves for decontamination. Change gloves frequently.
• Wear cover shoes or plastic bags bound with electrical tape or elastic bands around the ankles to prevent spreading the contamination.
• For dry contamination on yourself, use masking or adhesive tape to remove it.
• For wet contamination on yourself, use mild soap and rinse with lukewarm water taking care not to spread the contamination. If this fails, consult RSO to find suitable solvent.
• Don't rub skin harshly as this may cause skin damage.
• Once you are convinced that you have removed any contamination from yourself, begin to assess the area
• Determine the extent of the area contamination with a monitor or wipe tests.
• Delineate the contaminated area with a grease pencil or flagging tape.
• Remove any broken glass with tongs or forceps.
• Soak up liquid spills with “diapers”. Use wet paper towels for dry spills.
• Use Count-Off™ spray for decontamination, working from the outside to the centre of the spill.
• Test for residual activity using the survey meter or swipe tests.
• Repeat process of decontamination until the area is clean or until swipe tests yield consistent results indicating no further decontamination is possible.
• Place decontamination materials in a plastic bag. Seal and label the bag with a waste tag and note the tag number in the inventory sheet.
• Monitor the persons involved in the decontamination as well as yourself for personal contamination. Remember to check the soles of shoes
Secure the Area

- Secure the area against further access with flagging tape.
- Post Radiation Warning Signs.
- Do not resume work until the area is assessed by Radiation Safety Staff

Reporting of Spills and Incidents to the CNSC

- The Radiation Safety Office is required to report immediately any spills or incidents to the CNSC that involve more than 100 Equivalent Quantities, personnel contamination or the release of volatile material.
- If an exposure occurs that is in excess of the applicable radiation dose limits, the Radiation Safety Office must contact the CNSC with 24 hours of the occurrence.
Appendix C2: Chemical Spill Response Procedures

**Information**
1. Advise lab occupants of the spill and evacuate the area.
2. Notify your supervisor and/or lab coordinator of the spill. Provide details such as quantity spilled and chemical name.

**Risk Assessment**
3. Conduct an initial risk assessment to determine if:
   (i) building evacuation is required. If yes, pull the fire alarm and contact Campus Security at 2-4500.
   (ii) external resources are required to contain and clean-up the spill. If not, continue with step 4.

**Clean-Up**
4. Ensure the spill area has adequate ventilation to clear gases or vapours generated during the neutralization process. If there is a potential for gases to concentrate in the area, or if odours are overpowering, leave, mark the door, and contact Campus Security at 2-4500.
5. Wear appropriate personal safety equipment such as safety glasses and gloves.
6. Select the appropriate neutralizer or vapour inhibitor.
   - Spill-X-A for acid spills
   - Spill-X-C for caustic spills
   - Spill-X-S for solvent spills
7. Apply the powder around the edge of the liquid.
8. Sprinkle the powder toward the centre. With a plastic dustpan and brush, push the powder toward the centre until all liquid is absorbed. If necessary, add more neutralizing powder.
9. If cleaning up a solvent, proceed to step 13.
10. For acids and caustics, using a spatula, place a small quantity of mixture into a 100 ml beaker of water.
11. Stir the mixture and test with pH paper. The pH should be between 3 and 10.
12. Add more neutralizer until the appropriate pH is reached.

**Disposal**
13. When neutralization is achieved, scoop the mixture with a dustpan into a disposal bag.
14. Rinse the spill area with water and wipe up.
15. If uncertain about disposal, contact your supervisor or Environmental Health and Safety.
16. Disposal will vary depending on the liquid neutralized. After neutralization, some liquids produce a mixture which can go to landfill. Other liquids retain toxic properties and must be handled as special waste. For example, chromic acid can be neutralized but not detoxified.

**Documentation**

17. Complete an SFU incident report form.
18. If an employee visited a physician, or was absent beyond the day of the incident (due to the incident), then the supervisor completes a WCB Form 7.
Appendix C3: Biohazard Spill Response Procedures

INITIAL RESPONSE

1) If switches are accessible, shut off air conditioning units and ceiling fans.
2) Evacuate the lab if there is potential for aerosol generation from the spilled material. Spills in biosafety cabinets will likely be contained within the cabinet.
3) Post a “do not enter” sign on the door.
4) Secure corridor near lab entrance with “do not enter” tape.
5) Assess whether people or clothing require treatment for exposure to hazardous organisms.
6) Consult with supervisor.
7) Consult with lab coordinator.
8) Allow 60 min. for aerosols to settle before initiating clean-up.

CLEAN UP

1) Wearing gloves, mark the spill perimeter with a grease pen or masking tape.
2) If spill is in a piece of equipment, unplug it, and post a notice.
3) Set up the disposal bucket with a plastic bag liner.
4) Do not recap or bend needles, using tongs, place them in a sharps container for autoclaving.
5) Remove broken glass with tongs into an autoclavable container for autoclaving.
6) If practicable, begin cleaning upper surfaces and vertical surfaces before floors.
7) Soak paper towel in decontaminant such as bleach and lay them over the perimeter of the spill. Progress by laying more toward centre.
8) Place dry paper towels on top to soak up remaining liquid and apply more disinfectant. Keep spill area covered with decontaminant for 30 minutes.
9) Remove paper towels to lined bucket and wipe up until all material is absorbed and the area is dry.
10) Add more bleach to the bucket to ensure organism kill.
11) Place bucket in a fume hood for venting for 24 hours and wash hands.
12) After 24 hours, lift out bag and while standing over a sink with running water, poke a hole in the bottom of the plastic bag to drain the bleach.
13) Place the drained plastic bag with solids into the waste basket.
14) Wash hands.

DOCUMENTATION

15) Complete an SFU incident report form.
16) If an employee visited a physician, or was absent beyond the day of the incident (due to the incident), then the supervisor completes a WCB Form 7.
Appendix C4: Oil and Diesel Fuel Spill Response Procedures

Initial Response

1) Stop operations and shut off equipment.
2) Remove any sources of spark or flame.
3) Contain the source of the spill where possible.
4) Determine the approximate volume of the spill.
5) Identify the location of nearby storm drains, sewers and natural waterways.
6) Ensure that fellow workers are notified of the spill.
7) Contact the Environmental Health and Safety Department.
8) Contact Campus Security if any of the following are required:
   a) First Aid;
   b) Assistance from the Fire Department and/or other emergency responders;
   c) Evacuation of the surrounding area; or
   d) Traffic control.

Clean Up & Containment

9) Obtain spill response materials from the nearest spill response kit or by contacting Facilities Services.
10) Limit the spread of the spill by placing absorbent materials around the perimeter of the spill.
11) Contact an external clean-up company to clean up the spill and to dispose of contaminated materials.

Follow-Up

12) Complete an SFU incident report form.
13) Environmental Health and Safety will report the spill to the appropriate external agencies (e.g., PEP, GVRD, City of Burnaby), if necessary.
Appendix D: SFU Protocol on Biohazard Event Notification

NOTIFICATION: An individual ('notifying individual') who is concerned about a suspicious or noxious powder or liquid (biohazard material) anywhere on Burnaby campus shall immediately notify Campus Security [telephone: 2-4500] and their supervisor.

RECEIPT OF NOTIFICATION:

A. STEP ONE

Campus Security shall immediately dispatch security personnel to the area(s) of concern to confirm the initial validity of the complaint.

Campus Security personnel attending the event site(s) shall confirm the initial validity of the complaint (i.e., There is a package or a possible substance.).

If the event is confirmed, Campus Security will immediately evacuate the area and detain evacuees in a safe area for questioning. In addition, Campus Security will pull the ‘fire alarm’ which automatically shuts off the building ventilation systems. Campus Security will then turn off the fire alarm (sound) at the annunciator panel located in the building. (i.e., The act of pulling the fire alarm automatically stops the ventilation system.). In this particular instance, Campus Security will not notify the Burnaby Fire Department until such time as it is determined that a biohazard event exists. Campus Security will keep a fire watch while the alarm system is in ‘trouble mode’.

B. STEP TWO

Campus Security shall notify Facilities Services that a biohazard event potentially exists and that the ventilation system for the building is being shutdown.

Campus Security shall immediately notify the Environmental Health & Safety Department. Campus Security will ensure that notification is received and that the appropriate representative(s) will immediately report to the event area(s).

In addition, Campus Security will then notify the following individuals that Campus Security has received notification of a possible biohazard event and Campus Security has confirmed the initial validity of the complaint.

- Chair, University BioSafety Committee
- Director, Facilities Services
- Director, Health and Counseling Services
APPENDIX D

- Executive Director, Human Resources
- Vice President, Finance & Administration
- Associate Vice President, Financial Services
- Director, Public Affairs and Media Relations

SITE RESPONSE:

At the event site, Environmental Health & Safety and Campus Security, working collaboratively, shall gather information and clarify the circumstances of the events by interviewing witnesses (including the ‘notifying individual’).

Working collaboratively, Environmental Health & Safety, Campus Security and the Chair, University BioSafety Committee shall then assess the information to determine if further investigation is warranted.

If it is determined that a potential biohazard event exists, Campus Security shall notify the RCMP to request a response.

Campus Security shall update/notify the following individuals that a potential biohazard appears to exist:

- Director, Health and Counseling Services
- Executive Director, Human Resources
- Vice President, Finance & Administration
- Associate Vice President, Financial Services
- Director, Public Affairs and Media Relations
- Chair, University BioSafety Committee
- President
- Vice President, Academic & Provost
- Vice President, Research
- Vice President, University Relations

Campus Security will also notify contractors and service providers on campus who may have employees working near the biohazard event site.

UPDATING:

Campus Security shall regularly update the above named individuals (and affected contractors and service providers) on the status of the potential biohazard event.

If it is determined that a potential bio-hazard event does not exist, Campus Security shall notify the above individuals, and any previously notified contractors and service providers, of the event termination.
Appendix E: Responsibilities of Emergency Response Team Members

Please note that the action items provided on each checklist are not necessarily written in sequential order. Please proceed with the actions listed, even if the previous item has not been completed.
Incident Commander Checklist

Name: ____________________________ Date: ______________________

- Ensure the Burnaby Fire Department and Ambulance are contacted, as necessary. ______
- Obtain the Hazardous Materials Incident Report Form from the Campus Security Dispatcher. ______
- Obtain the hazardous materials door signage information and the Fire Safety Plan for the room(s) and building(s) involved in the incident. ______
- Ensure the Emergency Response Team is contacted (see Appendix A) ______
- Ensure the affected area or building(s) is evacuated and a safety perimeter is established. ______
- Establish first aid and assembly areas. ______
- Ensure evacuees are marshaled to the first aid and assembly areas. ______
- Ensure the necessary internal notifications are made. ______
- Designate a location as a Command Post outside of the affected area. ______
- Meet the Emergency Response Team at the Command Post and relay all information about the hazardous material incident. ______
- In consultation with the Emergency Response Team, conduct a risk assessment to ensure a safe response to the hazardous material incident. ______
- If the EOC is activated, communicate information about the incident to the EOC Director. ______
- Meet the Fire Department and other responding agencies and relay critical information regarding the incident, including: incident nature, location and severity; injured and handicapped persons; emergency systems in operation (alarms, sprinklers, generators, etc.); and the known locations and status of building personnel and evacuees. ______
- Provide the Fire Department with the hazardous materials information and the building Fire Safety Plan(s). ______
- Assist the Fire Department in setting up control zones. ______
## Security Patrol Checklist

<table>
<thead>
<tr>
<th>ActionOUNT ENTRY</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Respond to the scene. Do not enter the affected area unless safe to do so. If in doubt, do not enter.</td>
<td></td>
</tr>
<tr>
<td>2. Attempt to identify personnel associated with the hazardous material release and determine what material(s) are involved and whether there are any injuries.</td>
<td></td>
</tr>
<tr>
<td>3. Advise the Incident Commander of your findings.</td>
<td></td>
</tr>
<tr>
<td>4. Assist in evacuating personnel from the scene.</td>
<td></td>
</tr>
<tr>
<td>5. Marshal evacuees to the designated first aid and assembly areas.</td>
<td></td>
</tr>
<tr>
<td>6. Assist in maintaining the safety perimeter.</td>
<td></td>
</tr>
<tr>
<td>7. Provide first aid as required.</td>
<td></td>
</tr>
<tr>
<td>8. Provide traffic control as required.</td>
<td></td>
</tr>
<tr>
<td>9. Perform duties as directed by the Incident Commander.</td>
<td></td>
</tr>
</tbody>
</table>

-31-
## Facilities Services Representative Checklist

<table>
<thead>
<tr>
<th>✓ Action</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Respond to the Incident Command Post.</td>
<td></td>
</tr>
<tr>
<td>2. Participate in the risk assessment conducted by the Emergency Response Team.</td>
<td></td>
</tr>
<tr>
<td>3. Provide information regarding the utilities in the affected room/area.</td>
<td></td>
</tr>
<tr>
<td>4. Provide electrical and mechanical disconnects as necessary, such as the shut down of necessary utilities (e.g., natural gas or ventilation system).</td>
<td></td>
</tr>
<tr>
<td>5. Provide building floor plans as necessary.</td>
<td></td>
</tr>
<tr>
<td>6. In the event of an oil or diesel spill, provide spill response materials to limit the spread and to prevent environmental damage.</td>
<td></td>
</tr>
</tbody>
</table>

Name: ___________________________  Date: ________________________
# Environmental Health and Safety & Radiation Safety Officer Checklist

## Name: ____________________________  Date: ____________________

<table>
<thead>
<tr>
<th>Action</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Environmental Health and Safety Department (EHS) will respond to all incidents involving hazardous materials. The Radiation Safety Office will respond to incidents involving radioactive materials.</td>
<td></td>
</tr>
<tr>
<td>☐ 1. Respond to the Incident Command Post.</td>
<td></td>
</tr>
<tr>
<td>☐ 2. Secure the MSDS for the hazardous material(s) involved in the incident. Contact CANUTEC if the MSDS is not accessible or if additional information is required.</td>
<td></td>
</tr>
<tr>
<td>☐ 3. Access the hazardous materials door signage database to obtain information about the chemical hazards present in the affected room/area.</td>
<td></td>
</tr>
<tr>
<td>☐ 4. Contact the Emergency Contacts listed on the door sign of the affected room(s) and the Supervisor responsible for the affected area, if he/she has not already been contacted.</td>
<td></td>
</tr>
<tr>
<td>☐ 5. Advise the Emergency Response Team and Emergency Responders of the hazards associated with the released material(s).</td>
<td></td>
</tr>
<tr>
<td>☐ 6. In consultation with the Emergency Response Team, conduct a risk assessment to ensure a safe response to the hazardous material incident.</td>
<td></td>
</tr>
<tr>
<td>☐ 7. Provide assistance to the Fire Department in developing measures for assuring personnel safety when responding to the incident.</td>
<td></td>
</tr>
</tbody>
</table>

### After the release is contained:

<table>
<thead>
<tr>
<th>Action</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ 8. Contact the necessary external agencies to advise them of the incident.</td>
<td></td>
</tr>
<tr>
<td>☐ 9. Select a clean-up &amp; recovery contractor.</td>
<td></td>
</tr>
<tr>
<td>☐ 10. Organize a de-briefing session with all individuals who participated in the response.</td>
<td></td>
</tr>
</tbody>
</table>
# Departmental Contact Checklist

<table>
<thead>
<tr>
<th>✓</th>
<th>Action</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>1. Respond to the Incident Command Post.</td>
<td></td>
</tr>
<tr>
<td>☐</td>
<td>2. Provide general information about the room/area involved in the incident.</td>
<td></td>
</tr>
<tr>
<td>☐</td>
<td>3. Provide information about the individuals responsible for the room/area and the types of hazards that may be present.</td>
<td></td>
</tr>
<tr>
<td>☐</td>
<td>4. Participate in the risk assessment conducted by the Emergency Response Team.</td>
<td></td>
</tr>
</tbody>
</table>
# Area/ Location Emergency Contact Checklist

**Name:**  
______________________________________________  
**Date:**  
_____________________

<table>
<thead>
<tr>
<th>✔️ Action</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Respond to the Incident Command Post.</td>
<td></td>
</tr>
<tr>
<td>2. Provide specific information about the hazards present in the room</td>
<td></td>
</tr>
<tr>
<td>involved in the incident.</td>
<td></td>
</tr>
<tr>
<td>3. Contact other individuals who work in the affected room/area if</td>
<td></td>
</tr>
<tr>
<td>additional information is required.</td>
<td></td>
</tr>
<tr>
<td>4. Participate in the risk assessment conducted by the Emergency</td>
<td></td>
</tr>
<tr>
<td>Response Team.</td>
<td></td>
</tr>
</tbody>
</table>

-35-
### Appendix F: Reportable Amounts of Spilled Substances to the Provincial Emergency Program (PEP) and the City of Burnaby

<table>
<thead>
<tr>
<th>Spilled Substance</th>
<th>Class</th>
<th>Spill Reporting Regulation</th>
<th>TDG Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive</td>
<td>1</td>
<td>Any</td>
<td>Any quantity that could pose a danger to public safety or 50 kg</td>
</tr>
<tr>
<td>Flammable gas, other than natural gas</td>
<td>2.1</td>
<td>10 kg, if the spill results from equipment failure, error, or deliberate action or inaction</td>
<td></td>
</tr>
<tr>
<td>Natural gas</td>
<td>2.1</td>
<td>10 kg, if there is a leak in a pipeline or fitting operated above 100 psi that results in a sudden and uncontrolled release of natural gas</td>
<td>Any quantity that could pose a danger to public safety or any sustained release of 10 minutes or more</td>
</tr>
<tr>
<td>Non-flammable, non-toxic compressed gas</td>
<td>2.2</td>
<td>10 kg, if the spill results from equipment failure, error, or deliberate action or inaction</td>
<td></td>
</tr>
<tr>
<td>Toxic gas</td>
<td>2.3</td>
<td>5 kg, if the spill results from equipment failure, error or deliberate action or inaction</td>
<td></td>
</tr>
<tr>
<td>Flammable liquid</td>
<td>3</td>
<td>100 L</td>
<td>200L</td>
</tr>
<tr>
<td>Flammable solid</td>
<td>3</td>
<td>25 kg</td>
<td>25 kg</td>
</tr>
<tr>
<td>Oxidizing substance</td>
<td>5.1</td>
<td>50 kg</td>
<td>50 kg or 50 L</td>
</tr>
<tr>
<td>Organic peroxide</td>
<td>5.2</td>
<td>1 kg</td>
<td>1 kg or 1 L</td>
</tr>
<tr>
<td>Toxic substance</td>
<td>6.1</td>
<td>5 kg</td>
<td>5 kg or 5 L</td>
</tr>
<tr>
<td>Infectious substance</td>
<td>6.2</td>
<td>Any</td>
<td>Any quantify that could pose a danger to public safety</td>
</tr>
<tr>
<td>Radioactive Substances</td>
<td>7</td>
<td>All discharges or a radiation level exceeding 10 mSv/h at the package surface and 200 uSv/h at 1 m from the package surface</td>
<td>Any quantity that could pose a danger to public safety or resulting in an emission level greater than the emission level established in section 20 of the Packaging and Transport of Nuclear Substances Regulation</td>
</tr>
<tr>
<td>Corrosive substance</td>
<td>8</td>
<td>5 kg</td>
<td>5 kg or 5 L</td>
</tr>
<tr>
<td>Miscellaneous dangerous goods</td>
<td>9</td>
<td>-</td>
<td>5 kg or 5 L</td>
</tr>
<tr>
<td></td>
<td>9.1*</td>
<td>50 kg</td>
<td>25 kg or 25 L</td>
</tr>
<tr>
<td></td>
<td>9.2</td>
<td>1 kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>9.3</td>
<td>5 kg</td>
<td></td>
</tr>
<tr>
<td>Waste asbestos</td>
<td>9</td>
<td>50 kg</td>
<td>25 kg</td>
</tr>
<tr>
<td>Waste oil</td>
<td>-</td>
<td>100 L</td>
<td></td>
</tr>
<tr>
<td>Waste containing a pest control product</td>
<td>-</td>
<td>5 kg</td>
<td></td>
</tr>
<tr>
<td>Substance that can cause pollution, not listed above</td>
<td>-</td>
<td>200 kg</td>
<td></td>
</tr>
</tbody>
</table>

*This class no longer exists in the TDG Regulation. An amendment to the SR Regulation is in process to correct this situation.*
### Appendix G: Transportation of Dangerous Goods Classes

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
<th>Symbols</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Explosives</td>
<td><img src="images" alt="Symbols" /></td>
</tr>
<tr>
<td>2</td>
<td>Gases</td>
<td><img src="images" alt="Symbols" /></td>
</tr>
<tr>
<td>3</td>
<td>Flammable liquids</td>
<td><img src="images" alt="Symbols" /></td>
</tr>
<tr>
<td>4</td>
<td>flammable solids, spontaneously combustibles and substances that, on contact with water, emit flammable gases</td>
<td><img src="images" alt="Symbols" /></td>
</tr>
<tr>
<td>5</td>
<td>Oxidizing substances and organic peroxides</td>
<td><img src="images" alt="Symbols" /></td>
</tr>
<tr>
<td>6</td>
<td>Poisonous (toxic) &amp; infectious substances</td>
<td><img src="images" alt="Symbols" /></td>
</tr>
<tr>
<td>7</td>
<td>Radioactive materials</td>
<td><img src="images" alt="Symbols" /></td>
</tr>
<tr>
<td>8</td>
<td>Corrosives</td>
<td><img src="images" alt="Symbols" /></td>
</tr>
<tr>
<td>9</td>
<td>Miscellaneous products or substances</td>
<td><img src="images" alt="Symbols" /></td>
</tr>
</tbody>
</table>
# Appendix H: Clean-up & Recovery Contractors

<table>
<thead>
<tr>
<th>Company</th>
<th>Phone number</th>
<th>Services Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceda Emergency Response Team (C.E.R.T.)</td>
<td>(604) 540-4100</td>
<td>C.E.R.T. responds to all nine classes of dangerous good incidents and is well trained and equipped, with a major response center in Coquitlam.</td>
</tr>
<tr>
<td>Hazco</td>
<td>(604) 214-7000</td>
<td>HAZCO provides 24/7 emergency response services through its Emergency Response Team (ERT).</td>
</tr>
<tr>
<td>Quantum Environmental Group</td>
<td>1-866-333-6376</td>
<td>Quantum Environmental Group provides complete Emergency Response Services to manage a broad range of hazardous incidents on both land and water, from chemical and fuel spills to tanker roll-overs, train derailments and the release of toxins.</td>
</tr>
<tr>
<td>Eveready</td>
<td>1-888-734-8324</td>
<td>Emergency response services are billed on a retainer basis.</td>
</tr>
</tbody>
</table>