

CHAPTER 1: STARTING POINTS FOR PLANNING AND POLICY SETTING

Overview

This chapter sets the stage for safety planning for science classrooms. It outlines the roles of key stakeholders and lists sample actions that are appropriate to these roles. It also summarizes legislative requirements that affect planning for science safety and, finally, it provides general guidelines for promoting safety.

Due Diligence: An Approach to Science Safety

A first step in planning for science safety is to become aware of the potential hazards that science activities may present. Further steps focus on minimizing risks by taking reasonable safety precautions—in other words, by acting with due diligence.

In a legal context, due diligence means taking all reasonable steps to prevent accidents and injuries, thus avoiding the assumption of legal liability. However, due diligence is more than just a legal concept; it is a positive approach to avoiding accidents and injuries by identifying possible hazards, planning precautionary actions, and fulfilling one's responsibilities. This more general definition provides a common-sense starting point for safety planning.

Principals, administrators, teachers, and other staff can demonstrate due diligence by taking action in the following three key areas:

- ensuring awareness of potential risks and the related safety regulations
- ensuring staff competency in meeting these regulations, thereby avoiding unnecessary risk
- implementing monitoring and compliance strategies to ensure that regulations are met

Awareness of Legislated Safety Requirements

Principals, administrators, teachers, and other personnel need to know about the legislated requirements that apply to science courses offered in their schools. It is important to know about these regulations not only because they are legal obligations, but also because they help educators to better understand potential risks and the preventative measures that can be taken. Relevant legislation and requirements are summarized in this chapter inasmuch as they relate to safe practices in the science classroom.

Staff Competency

As outlined in the Manitoba Teachers' Society (MTS) Teachers Code of Conduct and the *Workplace Safety and Health Act and Regulations*, it is essential that teachers and other staff who perform potentially dangerous tasks are competent to handle these tasks. Competency means being aware of risks and being properly trained in relevant procedures. One of the legal responsibilities of administrators is to develop and implement plans to provide staff with this knowledge and training.

Evidence of staff competency may be required by provincial inspectors from the Department of Family Services and Labour.

Monitoring and Compliance

The third area of due diligence involves monitoring work environments and activities to ensure compliance with health and safety legislation. For principals and administrators, this means monitoring their schools or work sites to make sure that staff comply with legislation and work in a safe and healthy manner. For teachers and other staff, it means identifying and following safe procedures, and reporting situations that create potential risks.

Monitoring and compliance can be supported by

- discussing safety at staff meetings
- regularly reviewing plans, practices, and responsibilities related to science safety
- developing processes to keep staff aware of changes in legislation
- communicating regularly and sharing information on safety issues (e.g., if an individual encounters a problem with a piece of equipment, he or she makes others in the school and school division aware of the problem)
- evaluating unusual activities for safety considerations, and dealing with any health and safety issues before the activity begins
- reporting any violations of legislative requirements or divisional policy, using appropriate procedures
- giving regular attention to the following areas in planning:
 - *Emergency preparedness*: Are plans updated as required to reflect changes? Is student emergency contact information current? Are drills conducted regularly?
 - *Hazard identification and control*: Are hazards identified, evaluated, and dealt with appropriately? Are inspections conducted regularly? Are recommendations dealt with promptly?
 - *Accident/incident reporting and investigation*: Are all accidents reported to the appropriate authorities as required? Has a near-miss incident-reporting system been set up, and is it working effectively? Have

incident statistics been analyzed and are appropriate actions being taken in response?

- *Environmental protection:* Are all releases (leaks or spills) being reported? Is hazardous waste being properly identified, stored, and disposed of from the school?
- *Safe work practices:* Are safe operating procedures in place or being developed for hazardous activities? Are staff trained in these procedures? Are Material Safety Data Sheets accessible to staff in electronic and/or hard copy format?
- *Training:* Are all new staff given safety orientation training? Are existing staff members trained as necessary? Are training records kept?

Key Players: Roles and Recommended Actions

Responsibility for ensuring safety in the science classroom is shared by many members of the educational system, including the following:

- Government
- Universities and colleges
- School boards and superintendents
- School administrators
- Science teachers
- Science laboratory technicians
- Science students
- Parents

Individuals in each of these groups have roles to play in promoting safety in the science classroom. Sample role statements and recommended actions to fulfill each role are described below. Roles frequently overlap and need to be aligned with local circumstances. For example, some schools employ science laboratory technicians to help teachers prepare materials for laboratory activities, whereas, in other schools, materials preparation is done directly by the teacher. Whatever the staffing pattern may be, it is up to everyone involved to work together as a team to ensure that responsibilities are determined, understood, and fulfilled.

GOVERNMENT

Role: Make safety information available to Manitoba schools.

Responsibilities

- Develop and/or authorize resources that offer information and guidelines on safety in science classrooms and laboratories.

- Periodically update authorized science safety resources.
- Provide information sessions to highlight safety roles, strategies, and resources.

UNIVERSITIES AND COLLEGES

Role: Make safety information available to education students who take courses in science curriculum and instruction.

Responsibilities

- Include safety knowledge and skills into curriculum and instruction courses delivered to students prior to their participation in classroom practicum.

SCHOOL BOARDS AND SUPERINTENDENTS

Role: Provide leadership and resources to support science safety.

Responsibilities

- Develop safety policies and procedures consistent with current legislated requirements, and facilitate the implementation of these policies.
- Ensure that school and divisional staff carry out their safety responsibilities.
- Provide training and support to ensure staff competency.
 - Ensure that each school has staff trained in first aid and emergency care.
 - Ensure that staff is trained in the Workplace Hazardous Materials Information System (WHMIS).
 - Ensure that staff, as required, is trained in Transportation of Dangerous Goods (TDG).
- Make staff assignments that support the safe operation of science facilities on an ongoing basis (e.g., by assignment of science department heads or science laboratory technicians).
- Establish a system to monitor the effectiveness of safety policies and practices in their schools.
- Establish a system to periodically assess the adequacy of science facilities and safety equipment in each school, and provide for their ongoing maintenance.
- Make provisions for the safety of students with special needs or language difficulties.

SCHOOL ADMINISTRATORS

Role: Ensure safe policies and practices are in place at the school level, and support teachers in providing a safe working environment.

Responsibilities

- Ensure that staff have required safety training and expertise.
- Ensure that teachers and substitute/supply teachers of science have the expertise to teach the assigned curriculum safely.
- Ensure that staff who handle hazardous materials and prepare laboratories have the expertise to do so safely.
- Enable teachers and laboratory technicians to obtain training in science safety—in particular, to become familiar with the *Manitoba Workplace Safety and Health Act and Regulations* to meet the requirements of the Workplace Hazardous Materials Information System (WHMIS) and the *Transportation of Dangerous Goods Act*.
- Ensure proper disposal of chemical and organic wastes, in accordance with provincial regulations and local bylaws.
- In setting policies and practices for school organization, give consideration to
 - the number of students per science class
 - classroom size and facilities
 - curricular requirements
- Ensure that facilities used for science activities are safe and appropriate for the activities carried out in them, and that necessary safety equipment is available. (See the [Safety Equipment and Supplies \(on page 47\)](#) of Chapter 4 for further information.)
- Implement and maintain safe storage and waste disposal systems for hazardous substances used or produced in the school.
- Ensure that procedures are in place for hazard reporting, and that all safety concerns regarding facilities, equipment, and procedures are addressed.
- Ensure that schools have effective policies and practices to follow in case of accidents and emergencies.
- Maintain accurate records of accidents and first aid treatments provided, report accidents as required by the *Workplace Health and Safety Act*, and document near-misses.
- Cooperate with outside personnel and agencies in promoting science safety (e.g., local fire marshal, Manitoba Department of Family Services, and Department of Labour and Immigration).
- Stop any practices that jeopardize student or staff safety.
- Provide for the safety of students with special needs or language difficulties.

- Support and implement disciplinary measures to ensure safety in science classes.
- Ensure the school follows safety regulations and procedures.

SCIENCE TEACHERS

Role: Plan and prepare learning activities with a view to safety, and model and supervise safe practices in the science classroom/laboratory.

Responsibilities

- Make prudent decisions regarding the selection of laboratory activities, taking into account the learning environment, the knowledge and skills of the students, and the teacher's knowledge, expertise, and training to conduct activities in a safe and effective manner.
- Provide safety guidelines or lessons to students at the beginning of each year, term, or course. Outline students' roles and actions in maintaining classroom safety, and the location and use of safety equipment, and, where appropriate, obtain written confirmation from students that these responsibilities are understood and accepted. (See [Appendix A](#) for a sample safety contract for elementary students and for secondary students.)
- Explain and model safety procedures for each learning activity (e.g., the correct use of lab apparatus, safe handling of reagents/solutions, and reminders to students of their roles in a safe learning environment).
- Monitor students and correct behaviour that jeopardizes safety.
- Implement safety regulations specified by Board policy and relevant legislation.
- Maintain a confidential list of students with any physiological (e.g., allergies, asthma) or physical disabilities. Use a buddy system or other system for those with special needs.
- Contribute to developing and implementing a school laboratory safety policy and procedures.
- Be familiar with the location and use of safety equipment and the location of main gas valves and electrical breakers.
- Report any defects in science equipment, facilities, or practices to the school administrator responsible for safety.
- Verbally report any injuries or accidents to the school principal immediately, followed by a written report. Written reports of accidents are required under the *Workplace Health and Safety Act*. A recommended practice (but not legal requirement) is to document near-misses so that colleagues can avoid similar situations.
- Participate in health and safety training provided by the employer.

- Be trained in WHMIS if handling chemicals. (If responsibilities include shipping and/or receiving chemicals, Transportation of Dangerous Goods (TDG) training is required.)
- Inform administration when work conditions or responsibilities have changed and additional training is required.
- Take on roles and responsibilities of a science technician that have not been designated to someone else.

SCIENCE LABORATORY TECHNICIANS

This section applies to staff who may have a variety of related titles, such as laboratory aid, laboratory assistant, or laboratory technician.

Role: In general terms, their responsibility is to assist in the preparation of science laboratory materials as requested by teachers for specific laboratory activities. However, their role may also include promoting and maintaining safety standards in laboratory and classroom activities, managing chemical inventories in accordance with WHMIS and other regulations, and ensuring that all science and safety equipment is in good condition.

Recommended Actions

- Maintain laboratory safety equipment and ensure it is accessible.
- Ensure all science equipment is in good working condition and report equipment that needs repair or replacement.
- Identify, document, and inform teachers of safety problems related to specific lab activities, and adapt activities when necessary to eliminate problems while still meeting curriculum goals.
- Follow WHMIS and TDG regulations when dealing with chemicals, organic materials, and waste.
- Conduct a yearly chemical inventory, ensuring Materials Safety Data Sheets (MSDS) are current, and submit the inventory to the school's designated person responsible for hazardous materials.
- Ensure proper disposal of chemical/organic wastes in accordance with the *Environment Act*, *Canada Water Act*, and local bylaws.
- Work with the science curriculum leader to promote safe procedures and maintain safety standards in all science activities.
- Keep safety in the forefront within the science department through meetings, articles, posters, and other methods.

SCIENCE STUDENTS

Role: Support safety in the science classroom by acting responsibly and knowing how to respond to unsafe situations and emergencies.

Recommended Actions

- Inform the teacher of health concerns and circumstances that could affect personal safety (e.g., allergies, medications, use of contact lenses).
- Come to the laboratory appropriately dressed for lab work (e.g., closed shoes, long hair tied back, secured clothing or jewellery).
- Wear safety equipment as required.
- Learn about the hazards posed by materials and equipment to be used in each activity, and about procedures to be used and/or avoided.
- Learn about the location and use of safety equipment.
- Follow all safety procedures and instructions, and act in a way that shows concern for everyone's safety.
- Begin activities only with the teacher's permission.
- Report unsafe situations or accidents to the teacher immediately.
- Dispose of all chemicals, specimens, and other materials as instructed by the teacher.
- Wash hands thoroughly after each experiment.

PARENTS

Role: Support the school's efforts to provide safety in the classroom laboratory.

Recommended Actions

- Inform the school about relevant student medical conditions (e.g., latex allergy).
- At home, model safe handling of household cleaners, correct use of lawn and garden equipment, the proper disposal of waste materials, and other habits that transfer well to the school science learning environment.

Legislated Requirements

The following sections highlight some important elements of key legislation as they relate to science safety, and outline how teachers, administrators, and other staff can meet these requirements (listed by category).

Note: The information provided in this section was current as of April 2013.

Many aspects of school safety are governed by more than one piece of legislation. For example:

- The "maximum permissible occupancy load" of science laboratories and classrooms is regulated by the *Manitoba Fire Code*, which refers back to the *Manitoba Building Code* for base figures on "occupancy load."

- The use of chemicals is regulated under the *Workplace Safety and Health Act*, the *Hazardous Products Act*, and the *Transportation of Dangerous Goods Act and Regulations*. Additional aspects of chemical safety are regulated by the *Canada Water Act*, R.S.C. 1985, c. C-11, and may be further regulated by municipal sewer and solid waste bylaws.

FIRE AND BUILDING CODES

The Fires Prevention and Emergency Response Act and Regulations

<http://web2.gov.mb.ca/laws/statutes/ccsm/f080e.php>

This Manitoba Act provides regulatory information about the following:

- fire investigations and fire safety inspections (e.g., public schools must have a fire inspection in each three-year period of occupation)
- emergency and disaster response
- standards for building designs, equipment, and procedures required to minimize risk of fire and enable safe exit of occupants when fire occurs

The Manitoba Fire Code (available online at <<http://web2.gov.mb.ca/laws/regs/pdf/f080-155.11.pdf>>) is part of the regulations that fall under the *Fires Prevention and Emergency Response Act*. The *National Fire Code of Canada 2010* was adopted as the fire code for Manitoba. Particular sections of the code provide standards for

- fire protection equipment, including emergency lighting, sprinkler systems, fire extinguishers, and smoke alarms installation
- emergency procedures, fire drills, and fire department access
- required fire doors and hallways separation
- ventilation systems and strategies
- maximum permissible occupant load
- responsibilities of architects and professional engineers involved in building design

Factors used in determining the maximum permissible occupant load of a science room or laboratory include the type of use of the room, the room layout, the number and location of exits, and the size and location of furnishings. For advice on the maximum permissible occupant (student) load of a particular science facility, please request an evaluation by your local fire marshal or his or her designate.

The Buildings and Mobile Homes Act and Regulations

<http://web2.gov.mb.ca/laws/statutes/ccsm/b093e.php>

The Manitoba Building Code, 2011 (available online at <<http://web2.gov.mb.ca/laws/regs/pdf/b093-031.11.pdf>>) is part of the regulations that fall under *The Buildings and Mobile Homes Act*. The *National Building Code of Canada 2010* was adopted as the building code for Manitoba. It outlines standards for

the design, construction, and alteration of buildings in order to ensure the safety of occupants. Particular sections of the code provide standards for

- fire safety systems
- electrical wiring
- proper ventilation
- barrier-free travel paths in high-hazard occupancy areas
- emergency routes and lighting of these routes

Occupational Requirements

The Manitoba Labour Relations Act, 2011

<http://web2.gov.mb.ca/laws/statutes/ccsm/1010e.php>

In cases of a Labour Board inquiry into employment conditions, this Act gives the board, a mediator, or an officer of the board authorized for that purpose the right of entry to inspect the school premises, interrogate employees, view any active work, materials, machinery, appliances, and, where warranted, examine school records relating to safety inspections, fire drills, and staff training programs.

The Workplace Safety and Health Act (2010) and Regulations

The *Workplace Safety and Health Act and Regulations* was established to ensure reasonable levels of health and safety in the workplace. The regulations deal with chemical hazards and harmful substances, hazard assessment, first aid, emergency preparedness, fire and explosion hazards, personal protective equipment, and ventilation. Manitoba's Workplace Safety and Health Division is responsible for the administration of the *Workplace Safety and Health Act and Regulations*, helping to keep the province's workers committed to a safe environment on the job. This division focuses on eliminating both workplace and public hazards through preventive measures such as education, training, cooperation, and investigations and inspections.

This Act has extensive implications for both employers and employees (the latter are referred to as "workers" in the Act). Note that Manitoba legislation does not explicitly consider students to be workers under this legislation except for those serving in a recognized apprenticeship program or off-campus work experience programs.

According to the Act:

- The employer is responsible for the health, safety, and welfare of workers on the job.
- The employer must provide information on and control hazards, and establish a written occupational health and safety program where 20 or more workers are regularly working.

- Employees must take steps to protect their own health and safety and the health and safety of their co-workers; for instance, when the nature of the work requires it, use all devices and wear all articles of clothing and personal protective equipment designated and provided by the employer for this protection in the workplace.
- Employees (such as teachers in schools) have rights and responsibilities under the Act to
 - have knowledge about workplace hazards
 - participate in the health and safety committee and its activities
 - refuse work if they believe on reasonable grounds that the work may endanger the worker or others
- Suppliers must supply written instructions (e.g., MSDS information) and ensure that the biological or chemical products they supply are safe for use in the workplace when used according to the instructions provided by the supplier.

The following sections of the *Workplace Safety and Health Regulations* in Manitoba are particularly relevant for science classrooms and the science laboratory environment:

Part 4 – General Workplace Requirements

- An employer must ensure that a worker does not eat or drink in a part of a workplace that is, or may be, contaminated by a hazardous substance.

Part 5 – First Aid

- Employers are to maintain first aid equipment, supplies, and access to safety services.
- This section also specifies contents of first aid kits.

Part 6 – Personal Protective Equipment

An employer must ensure

- that workers wear and use personal protective equipment when exposed to any risk of injury
- that the protective equipment be provided to workers at no cost and immediately repaired or replaced if it is defective or contaminated with a hazardous substance
- that safe work procedures for the use of protective equipment be developed by the employer

Note: See [Chapter 4](#) for more details on personal protective equipment

Part 21 – Emergency Washing Facilities

- An employer must provide emergency washing facilities at a workplace where hazardous, irritating, or corrosive substances are used.
- The emergency washing equipment provided must meet the requirements and be installed, tested, and maintained in accordance with ANSI Standard Z358.1-4 and the equipment manufacturer’s specifications.

Part 35 – Workplace Hazardous Materials Information Systems (WHMIS)

The WHMIS system

- acts to inform people of the hazards of materials they might be (or are) handling in the workplace and thereby allowing them to minimize risks
- provides information for controlled or regulated chemicals with higher inherent risks
- specifies standards for the following:
 - labelling of chemicals: Labels alerting the user to hazards of the product and precautions for safe use are mandatory for controlled products.
 - Materials Safety Data Sheet (MSDS): The MSDS provides extensive information about the product, including potential hazards, health effects, proper handling, and disposal. By regulation in Manitoba, the MSDS must be provided by the supplier with any substance covered under WHMIS.
 - WHMIS training and education: Knowledge about potential hazards and safety procedures is mandatory for teachers, laboratory technicians, or any other person working with or near controlled products. An employer must ensure that workers are trained about the safety and health hazards associated with the controlled products in their workplaces. The training program must be workplace-specific and effective, and it is recommended that such training be reviewed annually.

Although the WHMIS requirements are not well defined with respect to students, this is not the case when it comes to school staff and school divisions. School staff are bound by the WHMIS requirements as workers and as supervisors.

Each school division is bound by the regulations in the *Workplace Health and Safety Act and Regulations* that apply to the duties of employers in Manitoba. This means, among other things, that **science teachers and other school staff who work with potentially hazardous materials must be WHMIS trained.** This training would typically be provided by the employer to enable the employee to

- recognize risks of controlled products they are handling
- learn how to safely handle these materials
- know where the Materials Safety Data Sheets (MSDS) are filed and how to use the information on them
- apply proper labelling to containers holding controlled products

See [Chapter 5](#) of this document for additional details on WHMIS, MSDS, and labelling of chemicals.

Part 36 – Chemical and Biological Substances

Employers must ensure the safety and health of workers who use, produce, store, handle, and dispose of chemical or biological substances in the workplace. As well, employers must develop and implement safe work procedures for chemical or biological substances that create or may create a risk to the safety or health of a worker.

Resources

Workplace Safety and Health

The following resources, which are available for download at the Safe Work Manitoba website, provide more specific information about Workplace Safety and Health Regulations.

- *The Workplace Safety and Health Act, 2010*
<http://web2.gov.mb.ca/laws/statutes/ccsm/w210e.php>
- *The Manitoba Safety and Health Regulation, 2006*
<http://web2.gov.mb.ca/laws/regs/pdf/w210-217.06.pdf>
- *Your Responsibilities for Safety and Health in the Workplace*
http://safemanitoba.com/uploads/bulletins/bltn_201.pdf
- *Safe Work and the Supervisor, Responsibilities*
http://safemanitoba.com/uploads/bulletins/bltn230_nov_2010.pdf
- *Worker Rights and Responsibilities*
http://safemanitoba.com/uploads/bulletins/bltn231_nov_2010.pdf
- *Elements of a Workplace Safety and Health Program*
<http://safemanitoba.com/uploads/elements.pdf>
- *WHMIS Guidelines*
<http://safemanitoba.com/uploads/guidelines/whmis.pdf>
- *Workplace Safety and Health Regulation – Part 05 – First Aid*
<http://safemanitoba.com/uploads/regulations/part5.pdf>
- *Emergency Washing Facilities*
<http://safemanitoba.com/uploads/bulletins/bltn104.pdf>

- *Workplace Safety and Health Regulation – Part 06 – Personal Protective Equipment*
http://safemanitoba.com/uploads/regulations/summary_part6___july_2011.pdf
- *Workplace Safety and Health Regulation – Part 36 – Chemical and Biological*
<http://safemanitoba.com/uploads/regulations/part36.pdf>
- *Workplace Safety and Health Regulation – Part 35 – Workplace Hazardous Materials Information System*
<http://safemanitoba.com/uploads/regulations/part35.pdf>

The Manitoba Labour Relations Act, 2011

<http://web2.gov.mb.ca/laws/statutes/ccsm/1010e.php>

In cases of a Labour Board inquiry into employment conditions, this Act gives the following to the board, a mediator, or an officer of the board authorized for that purpose: the right of entry to inspect the school premises, to interrogate employees, to view any active work, materials, machinery, appliances, and, where warranted, to examine school records relating to safety inspections, fire drills and staff training programs

A Guide to the Labour Relations Act

www.gov.mb.ca/labour/labbrd/pdf/lra_guide.pdf

The Public Schools Act of Manitoba, 2013

<http://web2.gov.mb.ca/laws/statutes/ccsm/p250e.php>

The *Public Schools Act* indicates the following responsibility for the care of students:

“Every school board shall ensure that each pupil enrolled in a school within the jurisdiction of the school board is provided with a safe and caring school environment that fosters and maintains respectful and responsible behaviours.” (Section 41(1)(b.1))

Manitoba Teachers’ Society Code of Professional Practice

www.mbteach.org/inside-mts/professionalcode.html

The Code of Professional Practice for Manitoba teachers indicates that a member’s first professional responsibility is to her or his students and that a member acts with integrity and diligence in carrying out professional responsibilities.

Environmental Requirements

The Environment Act

<http://web2.gov.mb.ca/laws/statutes/ccsm/e125e.php#10>

The *Environment Act* was established to help protect and maintain the environment. The Act ensures the environmental assessment of projects that can have significant effects on the environment. The Act also states that all polluters— including schools—are expected to pay for the cost of their actions. If any potentially damaging substance is released into the environment,

- the release must be reported immediately
- immediate steps must be taken to confine, clean up, and dispose of the substance
- the environment must be returned to a condition that is satisfactory to Manitoba environmental protection

This provincial statute sets the standard on a broader regulatory level with regards to human environmental impact, whereas municipalities take responsibility for establishing specific guidelines and standards for waste management. Such standards are embedded in local bylaws, identifying prohibited or restricted materials and regulating where and what wastes may be disposed of via local landfill sites and the sewage system.

Manitoba Dangerous Goods Handling and Transportation Act
<http://web2.gov.mb.ca/laws/statutes/ccsm/d012e.php>

This Act sets out requirements for handling, storing, and disposing of dangerous goods. If a school generates more than 5 L or 5 kg of hazardous waste per month, it would need to register as a waste generator. It also indicates the level at which an accidental release of hazardous waste would need to be reported (*Environmental Accident Reporting Regulation*).

Canadian Environmental Protection Act (CEPA), 1999, (Statutes of Canada, 1999, Chapter 33)
www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=26A03BFA-1

The ***Canadian Environmental Protection Act, 1999***, S.C. 1999, c. 33 and its regulations describe procedures for storage, transport, and disposal of hazardous wastes produced by industries as well as schools or school districts, and outlines how to deal with spills. Like the *Environment Act*, this Act states that all polluters are expected to pay for the cost of their actions.

According to Environment Canada, the CEPA (1999) provides guidelines, objectives, and codes of practice, which are not law, but can become the basis for laws and regulations.
www.ec.gc.ca/lcpe-cepa/default.asp?lang=En&n=2952CB83-1

Canada Water Act, R.S.C. 1985, (Chapter C-11)
<http://laws-lois.justice.gc.ca/eng/acts/C-11/index.html>

This Act defines *waste* as substances that alter water quality to the extent that its use would be detrimental to humans, animals, fish, or to plants that are useful to humans. It prohibits pollution of water in areas designated for restoring, maintaining, or improving water quality, and specifies the penalties for doing so.

Transportation of Dangerous Goods Act (TDG), 1992, (Statutes of Canada, 1992, Chapter 34)
www.tc.gc.ca/eng/acts-regulations/acts-1992c34.htm

The *Transportation of Dangerous Goods Act and Regulations* protects the general public and the environment during the transport of hazardous goods, including regulated chemicals ordered or disposed of by schools. The *TDG Act* provides a complementary system to WHMIS: during transportation, these products are called dangerous goods and are governed by the regulations of TDG. The *TDG Act* states that, during transport, dangerous goods must be identified by

- labels on containers
- placards on trucks
- shipping documents

These TDG regulations terminate with the reception of the regulated/hazardous chemicals by a receiver at the point of delivery. Once the regulated/hazardous goods have been unloaded from the transport vehicle and received, they become controlled products and fall under WHMIS regulations.

This information is important to staff and others in emergencies, as well as in routine activities. The TDG chemical classifications used in these labels and documents are international in scope, and as a result they are rigidly specified.

Local Bylaws

Most municipalities in Manitoba will have established bylaws related to waste management and disposal, particularly disposal of substances classified as *hazardous, prohibited, or restricted*. Local bylaws may restrict the limits of waste materials disposed of via the sewage system and, possibly, via the local landfill site(s).

In most cases, local bylaws support and reinforce the regulations of federal and provincial legislation, but they may also provide more specific disposal limits or other details. It is important to check with municipal offices or town/city councils for relevant bylaws in your area.

- City of Winnipeg: Sewer bylaw
www.winnipeg.ca/clkdmis/DocExt/ViewDoc.asp?DocumentTypeId=1&DocId=5243
- City of Brandon: Sewer bylaw
www.brandon.ca/images/pdf/bylaws/5957.pdf (see section 66, p. 35)
- City of Thompson: Sewer bylaw
www.thompson.ca/modules/showdocument.aspx?documentid=184
- City of Portage-la-Prairie: Sewer bylaw
www.city.portage-la-prairie.mb.ca/images/bylaws/Sewage%20By-Law%2096-7863.pdf

Other Legislation

Hazardous Products Act, 1985

<http://laws-lois.justice.gc.ca/eng/acts/H-3/>

This Act defines what materials are designated as controlled products in Canada. Designation of *controlled products* has the following significance for schools:

- The Workplace Hazardous Materials Information System (WHMIS) requirements apply to all materials designated as *controlled products*. Suppliers of controlled products are required to provide a Material Safety Data Sheet (MSDS) for each product and to ensure the product or its container is labelled with required information and hazard symbols.
- The advertising, sale, and importation of *controlled products* for use in the workplace, including Canadian schools, is regulated under the Act.

