

Public Works and Services
Safety Program

ACCIDENT PREVENTION MANUAL



2002
Public Works and Services
Government of the Northwest Territories
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Canada

If you have comments or corrections, write to PWSfeedback@gov.nt.ca

1. PWS Safety Policy

PWS is committed to providing safe and healthy working conditions and to promoting positive attitudes toward safety and health.

Department managers will work actively with employees and contractors to identify and correct unsafe or unhealthy working conditions and practices.

PWS recognizes that workplace safety is a shared responsibility. Everyone is responsible for the prevention of accidents.

2. Principles

1. Workplace safety is a joint responsibility of management and employees at all levels.
2. An effective accident prevention program must be clearly defined, monitored and enforced.
3. The accident prevention program must change and improve over time.
4. Managers must make sure we follow the *Safety Act* and *Regulations* and make sure that working conditions are as safe as possible for employees.
5. Employees must not act in ways that put health and safety in danger.
6. Employees have the right to refuse work that is not safe for themselves or others.
7. Managers must identify and provide training needed by employees to do their jobs safely.
8. Contractors working for the department must provide a safe working place and follow the *Safety Act* and *Regulations*.
9. Employees have the right to be told of work situations that may be a danger to their health or safety.

3. General Safety Rules

Our goal is to provide safe and healthy working conditions for all employees.

These safety rules will help us meet that goal.

Each employee should know and follow all the safety rules. Supervisors must enforce the rules and safe work practices.

Most accidents can be prevented if everyone uses the right safety equipment and follows the safety rules. To be a safe and successful department, we must work as a team.

THINK SAFE, WORK SAFE, AND BE SAFE.

Communication of Safety Rules

- Talk about safety rules and practices with new employees.
- Publish this Accident Prevention Manual. Encourage people to read it.
- Post the rules in all our work places.
- Remind staff of the rules. Have refresher training. Have safety reviews at staff meetings.
- When you see a safety problem, correct it on the spot.

Post the Safety Rules

The next page has a list of General Safety Rules. Post them in your work place where they are easy to find and read.

Nobody wants to have a serious injury or illness. Follow the rules, use common sense, and think before you act. If you are not sure how to do a job safely, ask your supervisor.

GENERAL SAFETY RULES

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1. Keep work areas clean and aisles clear.
2. Do not block emergency equipment or exits.
3. Keep fire doors closed.
4. Wear and use required protective safety gear. This includes steel-toed boots, hard hats, gloves, eyewear, face masks, etc.
5. Report all work injuries and illnesses to your supervisor right away.
6. If you see an unsafe act or unsafe condition, fix it or tell your supervisor about it.
7. Use vehicle seat belts.
8. Do not bring guns, weapons, or explosives onto Government property.
9. Do not use drugs or alcohol on government property or while you are on duty. This includes use of illegal drugs and also misuse of prescription drugs.
10. Only authorized and trained employees may repair or adjust machines and equipment. Follow "Lock and Tag Out Procedures" before you remove any machine guards or work on powered machinery and equipment. Replace all guards when the job is done.
11. Only qualified employees may work on or near exposed energized electrical parts or electrical equipment.
12. Only authorized and trained employees may enter a posted Confined Space.

The designated first aid attendant for this work site is

_____ (phone _____).

Health and Safety Committees

PWS has decided to have work site Health and Safety committees at these places:

- Fort Smith
- Hay River
- Ft. Simpson
- Yellowknife and North Slave Regional Office
- Norman Wells
- Inuvik

Each committee should include both office and shop staff.

Article 40 of the [Collective Agreement](#) has a lot of information about what the committees should do. The WCB also gives training on the role of Health and Safety Committees.

4. Safe Driving

Safety is important on the project, in the office and also in the vehicle you drive on government business.

PWS Vehicle Use Rules

These rules apply to employees of PWS and to contractors who use PWS vehicles.

Vehicles include cars, vans, pick-up trucks and other motorized vehicles that are used by PWS staff.

All the Time

- Use seat belts.
- Use PWS vehicles only for PWS business. No hauling private citizens unless it is work-related.
- Don't smoke in the vehicle.

Before You Drive

- Make sure all windows are clear and clean.
- Walk around the vehicle. Does everything look okay?
- Make sure material and equipment are properly stowed.
- Do normal safety checks (such as checking fluid levels) and report problems and unsafe vehicles to your supervisor.
- If you are on call or work after normal hours, talk to your supervisor about approval to take the vehicle home. You may be reimbursed for reasonable expenses, if the vehicle must be plugged in at home.

On the Road

- Obey all traffic laws.
- Don't use a cell phone while driving.

- Drive with headlights on at all times.
- Drive at speeds that fit the weather, traffic, road and vehicle. Don't drive when conditions are hazardous, except for an emergency.
- Take the shortest and most direct route.

After Driving

- Park in GNWT parking spaces, where provided.
- Switch off the ignition and remove the keys when you leave the vehicle. Lock the doors.
- If the temperature is below -20°C , plug the vehicle in.
- Keep idling time to a minimum.
- If the vehicle needs repairs, tell your supervisor.
- Keep vehicle clean inside.
- Keep vehicle logs up to date.
- Return shared or loaned vehicles and keys promptly.
- Remove your personal belongings and garbage after using shared or loaned vehicles.

In Case of Accident:

- Report all accidents to your supervisor and complete a Vehicle Accident Report form as required by Risk Management. Report to the RCMP accidents with injury or damage over \$1000. (Follow the procedures in Chapter 10 – Accident Reporting.)
- If damage is caused by your carelessness, you may have to pay for repairs or damages, and may be disciplined.

Supervisor Responsibilities

- When hiring for a job that includes a driving requirement, ask to see their driver's licence. Make sure they have the right class of licence for the vehicle they would be driving.
- Make sure your employees and contractors follow the PWS rules when using vehicles for government business.

- Make sure the driver is trained in proper use of the vehicle and its equipment (such as 4-wheel drive, where to place the jack to change a tire).
- Encourage employees to make best use of the vehicle. To lower costs, if 2 or more are going to the same place, have them travel together.
- If problems occur (such as carelessness, abuse or unauthorized use), follow usual discipline procedures.
- Tell drivers that traffic fines, parking tickets and related towing charges will not be paid by PWS.
- Be sure drivers know that GNWT vehicles are not normally used for transporting employees to and from airports that have taxi service.
- If you have questions, talk to the departmental vehicle supervisor, the Regional Superintendent, or your Director.

Vehicle Administrators

(These are employees who are named to look after vehicles for a region or section.)

- Make sure that vehicle maintenance is scheduled.
- Co-ordinate delivery and return of vehicles for maintenance and repair.
- Make sure Accident Reports are completed.
- Make sure vehicle registrations and insurance cards are current and available in the vehicles.
- Inspect vehicles periodically and write condition reports.

Driver Training

Who is Required To Take Driver Training?

Every PWS employee who drives a vehicle on government business is required to take driver training. Casual and seasonal employees who drive on business may not have an opportunity to take a course because of scheduling restrictions; however, they are required to take an evaluation drive – contact the h&s coordinator to make the necessary arrangements.

Can Others Take the Training Too?

Priority for available seats on courses is given to employees who drive on a regular basis, and therefore are required to take driver training as part of their core training requirements (see employee training plans).

In some cases, contractors may be required to take driver training courses in order to operate government-owned vehicles. An example is community fuel truck drivers who are contracted by the Petroleum Products Division.

Any remaining seats on courses are open to other PWS staff who have their supervisor's approval.

Apply for the courses using the on-line *Training Request* form.

What Courses are Offered?

The PWS Driver Training Program includes a group of courses delivered by the Alberta Motor Association (see [www.ama.ab.ca/cgi-ebs/driver ed/working driver.jsp](http://www.ama.ab.ca/cgi-ebs/driver%20ed/working_driver.jsp)). The following courses are in sequential order.

1) Proactive Driving (7 hours in class)

This defensive driving course uses discussion, self-assessment and case studies to explore issues associated with workplace driving. Courses #1 and #2 are prerequisites for, and are usually done at the same time as, #3.

2) Professional Driver Upgrade (½ hour in class and one hour in car)

This on-road course has a written knowledge test, psychophysical test (vision and reaction) and an on-road evaluation, as well as follow-up coaching. The 2 driving activities have a debriefing in between. The instructor provides a report giving an assessment of driving ability.

3a) Vehicle Control – Ice and Snow:

3b) Vehicle Control – Gravel:

(each course has 4 hours in class and 4 hours in car)

These 2 courses focus on the dangers in the driving environment and provide strategies for minimizing those dangers. The on-track portion of the course provides an opportunity to learn and practice vehicle control skills. Either 3a) or 3b) can be taken first.

4) Refresher Course (3½ hours in class and 3½ hours in car – rural, urban, track). This is for drivers who took courses #1 to #3 more than 2 years ago. This refresher can then be taken every 2 years thereafter.

5) Planning Ahead (Alcohol and Drug Awareness) (7 hours in class)

This course covers impaired driving laws, impairment, causes of driving while impaired, and separating impairment and driving.

6) Night Driving (3 hours in class and 4 hours in car)

This course identifies dangers associated with night driving and provides a set of strategies and skills for reducing and avoiding those dangers. This course is targeted at drivers who drive every day, which in the NWT in the winter means

driving under darkness ('night') conditions. This course also includes the 2 elements of off-road recovery and ditch entry.

Which Courses Should I Take?

Those with a high level of driving on the job (frequent short trips or infrequent long trips) should take courses #1 to #3 within 18 months of the start of the program or the start of the job. The short refresher course (#4) should be taken every two years thereafter. Planning Ahead (#5) and Night Driving (#6) are to be taken as directed by the employee's supervisor.

Employees who are occasionally required to drive (infrequent short trips) should take the proactive driving (#1) and professional driver upgrade (#2) courses within 2 years of the start of the program or the start of the job. Other courses should be taken as directed by the employee's supervisor.

What If I Fail a Course?

The instructors give grades of A, B, C, or D. If you are required to take the course, you need to get an A or B to pass.

If your grade is C or D, talk to your supervisor about the situation. Depending on the amount and type of driving you are expected to do as part of your job, you may be required to take more training or to restrict your driving.

Accidents and Convictions

If you have a vehicle accident or a serious driving conviction, you may be required to take extra driver training.

Winter Travel

Winter travel by road in the Northwest Territories is a special challenge. Weather conditions, distance to roadside help, and the type of roads, all mean that extra precautions are needed.

Planning Ahead

It is important to plan ahead for a trip in winter and especially if you are going on an ice road. Here are some rules to follow:

- **Don't travel alone.** This may not always be possible, but it is a good idea to co-ordinate trips for best use of vehicles as well as for help in case of problems.
- **Check on weather and road conditions.** Don't travel at temperatures lower than -40°C unless it is an emergency. Don't travel on any ice road before or after the official DOT dates.

- **Be sure you have adequate personal clothing and equipment.** Wear layers of loose-fitting, lightweight clothing. Outerwear must include a winter parka and wind pants, winter boots and mitts.
- **Before the trip, do a vehicle check.** Arrangements for a “road check” can be made with the local PWS maintenance contractor. There is also a list of vehicle items to check on page 12. In any case, be sure you have a shovel, a wheel wrench, a jack, and a spare tire that is ready to use.
- **Check your equipment.** Make sure you have the required vehicle and personal equipment for a winter emergency. Check with your supervisor for the list that applies to your region.
- **Speak to your supervisor.** Ask for any specific instructions you need before you go. Find out who to call when you arrive at your destination.

Call In – Before and After

To avoid being stranded on the road and to make sure someone will come looking for you, follow the Call In procedure for your location:

- Before you leave, call in with your departure time, destination and expected arrival time. Check with your supervisor for the proper phone number.
- When you reach your destination, call in again. If it is after working hours, the number to call may be different. You may have to use a cell phone, radio-telephone or SAT phone to make this call.

If no call is received by two hours after your estimated time, a search process may be started. It is very important to remember to call in when you arrive.

Allow extra time in your estimate for driving in winter and icy conditions.

Follow the procedure on both legs of the trip – going and coming back.

Vehicle Care

How long does it take to warm up a vehicle?

<u>Temperature</u>	<u>Warm-up Time Required</u>
0° to -15°	none
-16° to -40°	10 minutes

Ten minutes will clear windshields and allow the powertrain to operate properly.

The use of gas line de-icer is not recommended unless you are having some problems. Some gas line de-icers dry out fuel injectors and destroy gasket material.

Do not use 4-wheel drive unless you are in a situation where it is absolutely required. Using it all the time causes extra wear and burns more gas.

Report all vehicle problems to your supervisor

Winter Travel Vehicle Checklist

Check the:

- Battery
- Antifreeze
- Wipers and windshield washer fluid
- Lights
- Flashing hazard lights
- Exhaust system
- Heater
- Brakes
- Defroster
- Oil level
- Tires

and Do you have?

- Tire jack
- Wheel wrench
- Shovel
- Spare tire (ready to use)

5. Office Safety

The office is like any other work site. It may have potential health and safety hazards. You can make the office a better place to work:

- by good design of jobs and workplaces
- by remembering that all tasks and all people are not the same

Responsibilities

Managers

- Provide training for all office staff in:
 - emergency procedures
 - electrical safety
 - office ergonomics
- Make sure office equipment is in safe working order.
- Provide proper storage for office supplies.
- Make an action plan for your office to deal with emergency evacuations and safety issues.

Office Staff

- Report all safety problems right away.
- Do not try to repair any office equipment.
- Keep your office space neat and clean.

Noise Hazards

Noise is unwanted sound. One person's music is another one's noise, for example. In offices, noise may make it hard to talk on the phone. Noise can make it hard to have a face-to-face meeting too. It can make it hard to think and can increase errors. If a task requires you to concentrate, noise can make it hard to do the work. Noise bothers some people more than others.

Reducing Noise

Many unexpected noises cannot be controlled, like when someone accidentally drops something. However, for many annoying sounds in the office, these steps can help:

- Choose quiet equipment if possible. When there is a choice between products, include sound level when you compare them.
- Provide proper maintenance of equipment. Lubrication and tightening of loose parts can help with noise.
- Locate loud equipment where a little noise won't hurt. For example, place impact printers away from places where people must use the phone.
- Use walls or dividers to isolate noise sources. Acoustically treated materials can absorb noise that might otherwise travel farther. Rubber pads to insulate vibrating equipment can also help to reduce noise.
- Enclose loud equipment with acoustical covers.
- Schedule noisy tasks at times when it will have less impact on the people in the office.
- Be thoughtful when talking in the office or playing music.

Electrical Safety

Examine electric cords on a routine basis for fraying and exposed wires. Pay special attention to cords and plugs behind furniture. Files and bookcases may have been pushed tightly against electric outlets, which bends the cord at the plug. Be sure that all electrical appliances meet CSA or ULC requirements.

Use of Extension Cords

- Use extension cords **only** where fixed wiring is not possible.
- Keep extension cords in good condition. Make sure they are not bent, knotted, scraped, or cut.
- Place extension cords so they do not cause a tripping hazard.
- Do not place extension cords through doorways or under carpets.
- All extension cords must have 3-prong plugs.

Housekeeping

Good housekeeping is an important part of accident prevention in offices.

Poor housekeeping may lead to fires, injuries to personnel, or unhealthy working conditions.

Proper layout, spacing, and arrangement of equipment, furniture, and machines are essential.

- Make sure hallways and aisles are clear. No boxes, extra tables, or other things to trip over. Aisles need to be clearly defined.
- Replace or repair any damaged chairs, files, bookcases or desks. Damaged chairs are especially dangerous.
- Always keep filing cabinet drawers closed when not in use. Make sure that bottom drawers are filled first.
- In a supply room, neatly stack supplies so they are easy to reach. Be sure to stack supplies so they will not fall over. Never stack anything close to fire sprinkler heads or Halon nozzles. Leave at least 18 inches of space around the heads and nozzles.

Computer Work Stations

Computer users often complain about aches and pains. Most complaints are about the neck, shoulders, and back. Others concern the arms and hands and sometimes the legs.

Here are some reasons for these aches and pains:

- Design of the workstation.
- Type of task.
- Tasks that are repeated.
- How tense or relaxed you are.
- How fast you have to work.
- Work and rest schedules.
- Habits of the worker.
- Size and shape of the worker.

The key to comfort is to keep your body in a relaxed, natural position. The ideal work position is to have the arms hanging relaxed from the shoulders. If a keyboard is used,

- bend your arms at right angles at the elbow
- hold your hands in a straight line
- keep your forearms and elbows close to the body
- keep your head in line with your body and slightly forward.

Display Screens

When you work at a computer, the top of the display screen should be at, or just slightly below, eye level. This lets the eyes look at the screen in comfort, without having to tilt your head or move your back.

Control glare at the source whenever you can. Place the screen so it is parallel to direct sources of light such as windows and overhead lights. Cover the windows if needed. When you can't get rid of glare sources, try using a glare filter on the screen. Keep the screen clean.

Your Chair

A good chair is important. Adjust your chair for comfort. Make sure your back is supported. Adjust the chair seat so that when you sit, your thighs are horizontal and your feet are flat on the floor.

An ergonomic chair has four things to adjust: seat tilt, backrest angle, seat height, and backrest height. You can change the chair according to your task. Look for a chair where it is easy to make changes.

Armrests on chairs are recommended for most office work except where they get in the way. Resting your arms on the armrests is a very good way to reduce arm aches and pains. Armrests should be short and low to allow workers to get close enough to your desk.

Working Height

How high should your desk or table be? It depends on what you are doing. Make sure the surface is high enough so you can keep your arms low and close to your body as you work.

If the surface is too high, your shoulders or arms have to be lifted. This may lead to pain in the neck and shoulders. If, on the other hand, the surface is too low, you have to lean over, which may cause backache.

Work should be done at about elbow height, whether sitting or standing. Adjustable workstations should be provided so people can change the stations to

meet their needs. A computer workstation without an adjustable keyboard height and without an adjustable height and distance of the screen is not suitable for continuous work.

Other Solutions

Here are some more ideas for working on a computer:

- Change position. Stand up or stretch when you start to feel tired.
- Use a soft touch on the keyboard. Keep your shoulders, hands, and fingers relaxed.
- Use a document holder, placed at about the same level and distance as the display screen.
- Rest your eyes by sometimes looking off into the distance.

Office Lighting

Different tasks require different levels of lighting. Areas where intricate work is done, for example, need more light than warehouses. Lighting needs also vary from time to time and from person to person. Use adjustable task lighting to get light on one spot without increasing general lighting.

Task lamps are a good way to add to the general office light levels for people who need more light. Some task lamps permit several light levels. Since you control your own task lamp, it can meet your special needs.

Waste Disposal

Be careful if you handle hazardous material, such as broken glass. Throw it away in a proper wastebasket.

Put a sign on any wastebasket with broken glass or other hazardous material in it. This will warn maintenance staff to be careful too.

Emergency Action Plans

Emergency Action Plans help you make decisions in an emergency. To keep employees safe and protect government property, plan ahead, train, hold drills, and set up Emergency Action Teams.

An Emergency Action Plan includes:

- What are the ways to exit the building?
- Where do employees meet after leaving – in good weather and bad?

- How do we make sure all employees are out of the building?
- Who is in charge during and after an evacuation?
- Who calls the fire department or other emergency services?
- What do we do if a person is injured?
- What do we do about property damage?
- How do we protect our information, both papers and computer data?
- What do we do if there is a bomb threat?
- How do we keep our offices safe?
- Do we have First Aid resources?
- How and when do you use a fire extinguisher?

Emergency Action Team members should be trained with quarterly reviews and drills. Twice a year drills with all employees should be held to make sure everyone knows what to do.

All Public Works and Services work places with more than 10 staff members must have a written Emergency Action Plan.

6. Employee First Aid Services

The *Safety Act* requires employers to provide first aid services and equipment at work sites.

First Aid Equipment

If your work site is within 20 minutes* of a hospital or health centre, you need First Aid kits:

- Up to 15 workers? You need at least one NWT #1 first aid kit.
- 16 to 74 workers? You need at least one NWT #2 first aid kit.
- 75 or more workers? You need at least two NWT #2 first aid kits.

First Aid Attendants

If your work site is within 20 minutes* of a hospital or health centre, you need people trained in first aid:

- 6 to 9 workers? You need at least one first-aider who has completed a multi-media first aid course.
- 10 to 19 workers? You need at least one first-aider who has a valid standard first aid certificate.
- 20 to 49 workers? You need at least two first-aiders who have a valid standard first aid certificate.
- 50 and more workers? You need at least 3 first-aiders who have a valid standard first aid certificate.

* If your work site is more than 20 minutes from a health centre, more kits and first-aiders are needed.

7. Safety Training

Training is one of the most important parts of a safety and health program. It helps employees learn to do their jobs safely. It also reminds staff of safety policies and procedures.

New Employee Orientation

Supervisors: Make sure new employees are told about safety in their workplace as soon as possible. Here are some things to talk about:

- Safety Act and Regulations, General Safety Rules
- Safety information in the UNW Collective Agreement
- Emergency plans: Where are the exits? Where do you meet outside?
- Where the fire alarm pull boxes and fire extinguishers are and how to use them.
- Where the first aid box is and who is trained to give first aid.
- What to do if you see a safety problem, accident, or near-miss.
- Equipment safety
- Where to find the MSDS sheets (information about hazardous materials)
- Electrical safety and lockout/tagout

After you finish the safety talk, give the new employee any more safety training needed for the job. You may want to talk about:

- Safe operating procedures
- How to lift safely
- Safety equipment and personal protective equipment

Training Every Year

Employees in some jobs may need safety training every year. The training may be given by supervisors, WCB or a private company. Some safety topics can be covered at monthly meetings.

Topics may include:

- A review of safety policies and rules
- Ergonomics (designing things so the workplace fits the worker)
- Hazard communication and chemical safety
- Emergency action procedures
- Safe driving
- First aid certification
- Personal protective equipment
- Electrical safe work practices
- Confined space entry and rescue
- Respiratory protection
- Powered industrial truck operation
- Project site safety
- Scaffolds and fall protection
- Transportation of Dangerous Goods
- Workplace Hazardous Materials Information Systems (WHMIS)

8. Personal Protective Equipment

Where there is a risk of injury, employers are required to provide employees with personal protective equipment. The Department must take reasonable steps to make sure employees use protective clothing and safety equipment.

The Standards

These are the standards for some of the equipment:

- protective footwear meeting CSA Z195-M92 standards
- protective headgear meeting CSA Z94.1-92 standards
- protective eyewear meeting CSA Z94.3-92 standards.

CSA is the Canadian Standards Association (<http://www.csa.ca>).

Employees must use required protective equipment.

Safety Equipment Allowances

Trades Employees

Article 46.07 of the [Collective Agreement](#) gives the rules for trades staff to receive a payment for personal protective equipment. A yearly allowance of \$200 is available for employees required to wear safety footwear every day.

Other Employees

Section 3.1, [Safety Equipment Allowance](#) of the *Procedures and Guidelines Manual*, tells about the \$200 available for other eligible employees who require personal protective equipment for their job.

9. Workplace Inspection

Regular inspections of work sites, such as shops and garages, must be done. These can identify and control hazards and unsafe conditions before there is an accident.

How often do you need an inspection? It depends. For example, work sites that are used every day should be inspected once a week. On the other hand, work sites that are not visited often, such as school mechanical rooms located in remote locations, should be inspected every time they are visited.

The Inspection

- Look at the work place and what happens there.
- Find any problem that could cause hurt to someone.
- Take action to change it.

Responsibility

Who does inspections? Supervisors. They should always watch for safety problems. In many cases, you can correct a problem by talking about an unsafe act with employees or by ordering that an unsafe condition be corrected. If more action is needed, write it down and follow up.

Who can help with inspections? Employees. When you notice a safety problem, tell your supervisor.

Inspection Procedure

Before the Inspection

1. Look at old inspection reports for repeat hazards and where they are.
2. Think about or read about related fire, health and safety problems.
3. Identify new work equipment and items with a high risk of accidents.

Inspection

1. Use an inspection report form (like the one on page 25).
2. Read the last inspection report, noting items that have not been fixed.
3. As you inspect, mark the checklist.
4. Correct serious hazards on the spot.

Report Inspection

1. Write down the inspection results.
2. Make an action plan with clear dates to fix problems.
3. Be sure to assign responsibility in the action plan.

Safety Inspection Form

Name of Inspector _____ Date _____

Area Inspected _____

For items checked NO, fill out a Work Order. Mark N/A for items that don't apply to this space.

	Yes	No
Fire Protection		
Fire extinguishers inspected, charged, accessible (3 ft clearance)		
Combustible material removed, stored properly. Flammable material in approved areas		
Exit routes clear & EXIT or NO EXIT signs posted (lighted & visible)		
Evacuation routes are posted		
Storage separation from Walls & Ceiling (at least 18" for areas with sprinklers)		
Electrical Safety		
Power panels, controls, receptacles & wiring covered. No missing, loose or broken parts		
Electric power cords are not frayed or broken. All plugs have 3 prongs.		
No extension cords through walls, doors, ceiling, windows or under mats or rugs		
Electric panels are marked to indicate Service & Voltage. 3 foot clearance each side.		
Other:		
Trip-Slip-Fall Hazards		
Drain covers & grates are in good repair and installed		
Walkways are clear of material and cords		
Guardrails, steps are secured. Ladders are in good repair, no missing, loose parts		
Adequate lighting in all areas, including outside night lighting		
Other:		
Personal Protection		
Emergency Eye Wash Stations capped, functional, accessible		
Personal Protective Equipment being used		
Good body mechanics (lifting, pushing, pulling, range of motion, no twisting)		
Other:		
Chemical Safety		
All containers are properly labeled with specific hazards and are closed or sealed.		
Only the minimum amount needed is in the work area. All others are properly stored.		

10. Accident Reporting

The *Safety Act* requires that all accidents be reported to the Workers' Compensation Board.

The *Safety Regulations* (section 35) say:

An Employer shall report

- a) immediately, an accident resulting in the death of any employee, occurring at the place of employment, and
- b) an accident of a serious nature involving any employee, occurring at the place of employment, within 24 hours of the accident, to the Chief Safety Officer.

What Should Be Reported

Workers' Compensation Board

Report any injury or illness that happens on the job and results in:

- time off work
- restrictions in doing the job
- permanent physical damage
- death.

Management

Report to your manager all of the above WCB items plus other safety related incidents:

- illness caused by work
- damage to a vehicle
- fire or explosion
- property damage of more than \$100
- chemical releases requiring evacuation of any area.

Don't Report

Don't report injury or illness such as:

- small paper cut
- common cold
- small bruise

or anything that does not restrict your ability to work. However, you may want to write the injury in the First Aid Record Book. This helps if something more serious develops.

What is “Work-Related”?

An injury or illness is work related if:

- it happens on the employer’s property, including storage places, rest rooms, and parking areas
- it happens in other places if the employee is doing work or is there because of work
- it happens when you are using work equipment or materials

Reporting Forms

Both Employer and Employee accident reporting forms are available in Adobe Acrobat (.pdf) format from the Workers’ Compensation Board web site:

<http://www.wcb.nt.ca/Forms/index.htm>

11. Accident Investigation

Accident investigations help us prevent similar accidents in the future. The investigation should be fair, prompt and accurate.

Responsibilities

Senior Management

- Make sure all accidents and injuries are properly investigated
- Make sure fast and long-term action is taken to correct the problem
- Provide all medical care needed for injured workers

Supervisors/Managers

- Do the first investigation right away.
- Report all accidents to management as soon as possible.
- Collect and take care of all evidence that may be useful in an investigation.
- Talk to witnesses in a polite professional way.
- Do not try to find or assign blame for accidents.
- Take action to protect people and property from side effects of accidents.
- For a serious incident, secure the site (make sure nobody can come in and mess up the clues).

Employees

- Report all accidents and injuries to your supervisor right away.
- Help in the accident investigation.
- Report all dangers and near-misses to your supervisor.

Conducting Investigations

First Investigation

We do the first investigation to:

1. Prevent more injuries and property damage.
2. Collect facts about the accident.
3. Collect and keep safe any evidence.

Steps

- Secure the area. Do not disturb the scene unless there is a danger.

- Draw sketches and take pictures, as needed. Label each carefully and keep accurate records.
- Talk to each victim and witness. Also talk to people who were there before the accident and those who arrived at the site shortly after the accident. Keep accurate records of each interview. Use a tape recorder if you want and the person agrees.

Find Out

- What was not normal before the accident?
- Where did the problem happen?
- When was it first noticed?
- How did it happen?

Follow-up Accident Investigation

The follow-up investigation is used to study the data and find the causes and corrective actions needed to prevent more accidents like this.

Steps

- Analyze the data from the first investigation.
- Repeat any steps, if you need to. For example, talk to witnesses again.
- Decide why the accident happened. Figure out a likely set of events and probable causes (direct, indirect, basic).
- Decide on the most likely causes.
- After the investigation hold a meeting with staff to tell them what happened.
- Write a report. Include recommended actions to prevent more accidents.

Talking to Witnesses

Experienced staff should do interviews. All talks should be held in a quiet and private place. It is important to get statements as soon as possible from all witnesses. Investigators should not give any facts to the witness - only ask questions that won't lead the witness to only one answer.

- Explain why you are investigating (to prevent more accidents). Put each witness at ease.
- Listen. Let the witness speak freely. Be professional, polite and kind.

- Take notes without distracting the witness. Use a tape recorder only if the witness says it's OK.
- Use drawings and diagrams to help the witness.
- Ask them to tell you what they saw and heard, not what someone else told them.
- Do not argue with the witness.
- Write down the exact words used by the witness.
- Identify each witness (name, address, occupation, years of experience, etc.).

Investigation Report

An accident investigation is not done until a report is written and sent to senior management. An accident report should be clear and concise.

Here is some information you can include in the report:

1. Background Information

- a. Where and when the accident occurred
- b. Who and what were involved
- c. Operating personnel and other witnesses

2. Account of the Accident (What happened?)

- a. Sequence of events
- b. Extent of damage
- c. Accident type

3. Discussion (Analysis of the Accident – How? Why?)

- a. Direct causes (energy sources; hazardous materials)
- b. Indirect causes (unsafe acts and conditions)
- c. Basic causes (management policies; employees or environmental factors)

4. Recommendations (to prevent a recurrence)

- a. Basic causes
- b. Indirect causes
- c. Direct causes (such as reduced quantities or protective equipment or structures)

12. Contractor Safety

We want to keep our workers safe, but we also want to keep contractors and their workers safe. The PWS Project Management manual has more information about safety at construction sites.

When we say contractors, we mean any worker outside the government who is doing a job for us, such as:

- Construction Companies
- Maintenance and Repair Contractors
- Utility Service or Repair Companies
- Janitor Services
- Pest Control Services

Pre-construction Meetings

A full safety review should be part of pre-construction meetings with the contractor and subcontractors. On large value projects, the Workers' Compensation Board may be asked to attend.

Other Contracts

Similar safety start-up meetings should also be held for maintenance and repair contractors with whom the department will have a long-term relationship or for one-time contracts that involve high risk activities, such as:

- Renovation
- Equipment installation & repair
- Utility modifications
- Electrical work
- Work at elevated locations
- Confined space entry
- Use of toxic substances
- Hot work or welding

All task-specific safety concerns need to be talked over and resolved before the contractor starts the work.

Employers Safety Committee

When a construction contract lasts more than 3 months, the Safety Act requires that PWS and the contractors and sub-contractors form a joint committee to work on accident prevention at the work site.

13. Asbestos Management Plan

In May 2000, our Asset Management Division published an Asbestos Management Plan.

This publication is intended to ensure that asbestos-containing materials (ACM) in GNWT facilities are adequately maintained, controlled and handled. This protects workers and building occupants and ensures that we meet all regulatory and policy requirements.

Copies of the plan are available from the Technical Support Services Section, Asset Management Division, Public Works and Services.

14. Confined Space Hazard

A confined space is a space that:

- provides limited means of entry or exit,
- has poor natural ventilation,
- contains or may develop a dangerous atmosphere,
- is not normally intended for people to stay in, and
- may require the use of protective equipment including a capability for immediate rescue of a worker who enters.

Examples of confined spaces include:

- fuel tanks and tank farm enclosures
- process vessels
- boilers
- silos
- sewers
- tunnels
- trenches
- manholes
- pits
- attic spaces and crawl spaces in buildings.

Dangers of Confined Spaces

Why do people die in confined spaces? These deaths occur because:

- People fail to recognize a confined space when they see one. They simply do not know this space is dangerous.
- Some people recognize a confined space, but they trust their senses. They think that if a confined space looks safe, it is safe.
- People think that 'it' won't happen to them. They think they can get in, do the job and get out before the danger can affect them.
- People fail to think about the danger. They forget that a hazard can develop after they enter the confined space.
- They try to rescue other people in the confined space without the help of a rescue team.

Basic Precautions

You must be able to:

- Identify a confined space. Some places may not be a confined space at first, but work activities may turn this into a confined space.
- Test and monitor the air inside the confined space. Make sure the air is good before you enter and while you are in the confined space.
- Think about what other dangers may be present. What precautions are needed for safe entry into the confined space?
- Call for rescue help when needed. **Never** try a rescue by entering the confined space on your own.

Rating Hazards

Low Hazard

Low hazard confined space means:

1. The air inside the space has been tested. It is equal to clean outside air and is expected to stay that way. (This means oxygen content is more than 19.5% and less than 23%.)
2. Measurable flammable gas or vapour, toxic gases are not present.

Moderate Hazard

Moderate hazard confined space means:

1. The air is contaminated or it may soon be contaminated, but the worker could probably escape the confined space without help. (This means oxygen content is greater than 19.5% and less than 23%.)
2. Flammability is less than 20% of the LEL (Lower Explosive Limit). Toxic gases are well below WCB limits. Examples include performing hot work, fibreglassing, cleaning or grinding.

High Hazard

High hazard confined space means:

1. Tests before you enter show too much or not enough oxygen.

2. The air inside the confined space may not remain static and may become IDLH (Immediate Danger to Life and Health).
3. The air may keep the worker from escaping the space without help, in case the ventilation system or respirator fails. (This means oxygen content is below 19.5% or greater than 23%.)
4. Flammability level is 20% of the LEL or greater.
5. Toxic gases are getting close to IDLH or the air is going bad quickly (enough to make a person get dizzy and then pass out).

Types of Hazards

Confined space hazards can be divided into visible and non-visible types.

Visible Hazards

Visible hazards are hazards you can see. Some examples are

- stacks of supplies
- when materials are hanging up
- when materials at the bottom of a pile could collapse
- walls or ceilings that could collapse
- mechanical equipment like impellers.

Invisible Hazards

Invisible hazards are usually dangers in the air. They include:

- too much or not enough oxygen
- flammable or combustible substances in the air
- toxic gases like hydrogen sulfide (H₂S) and sulfur dioxide (SO₂).

Other invisible hazards include heat stress, hypothermia, thermal burns, noise and electric shock.

Some of these dangers may not be present before you enter, but may develop during work in the confined space. This might be the case if you are welding, painting or fibreglassing.

Associated Hazards

Other hazards connected to working in a confined space include:

- Touching corrosive or other chemical irritants.
- Cave-in or collapse when working in trenches or excavations.
- Flooding of trenches, vessels or tanks.
- Electrical shock from tools, equipment or lighting.
- Thermal burns from steam or other hot fluids.
- Other physical hazards like heat, cold and noise as well as nails and screws that stick out.

Identifying Hazards

Supervisors must look carefully at each facility and identify confined spaces.

- Look for the specific gases that may be present in the confined space so the air can be properly tested.
- Develop procedures for any confined space:
 - possible dangers
 - required safety equipment
 - how to enter safely
 - how to monitor safety
 - rescue procedures
 - Confined Space Entry Permit, if applicable
- Put a sign on the outside of each confined space, at the usual point of entry.

Summary

Working safely in a confined space is possible:

1. Know what a confined space is.
2. Look for any dangers before you enter. Follow the procedure for this confined space.
3. Control the dangers by isolation and lockout, ventilation and air monitoring.
4. Where permit forms are required, read the permit carefully before you enter.
Never enter any confined space without an authorized permit to do so.