APPENDIX N – CITY OF WINNIPEG SOPS & SWPS



Chemical and Biological Substances Protocol

AUTHORITY FOR PROTOCOL: Director of Human Resources

LAST UPDATED: July, 2018

Protocol

CHEMICAL AND BIOLOGICAL SUBSTANCES SHALL BE USED, HANDLED, STORED AND DISPOSED OF IN A SAFE MANNER AS TO REDUCE THE RISK OF HARMFUL EXPOSURE.

A. PURPOSE OF PROTOCOL

- Ensure compliance with the Manitoba Workplace Safety and Health Act & Regulations.
- Establish requirements for assessment and control of chemical and biological hazards.
- Enhance the safety of employees working with chemical and biological substances.

B. KEY CONCEPTS

- The safety risk of chemical and biological substances in the workplace is directly related to the hazards associated with the substance and how it is used.
- Assessing the hazards and implementing appropriate control measures, including safe work procedures, will reduce the risk of harmful exposure.

C. CHEMICAL AND BIOLOGICAL SUBSTANCE DEFINITIONS

Biological Substance means a substance containing living organisms or parts of living organisms in their natural or modified forms.

Chemical Substance means any natural or artificial substance, whether in the form of a solid, liquid, gas or vapour, other than a biological substance.

Control Measure means steps taken to prevent harmful exposure.

Exposure means exposure through inhalation, ingestion, injection, skin or mucosal contact, absorption or other route of entry to the human body.

(Material) Safety Data Sheet *[(M)SDS]* means a written document prepared by the supplier or manufacturer that contains information about a hazardous product, including information related to the hazards associated with any use, handling or storage of the product in the workplace.

Workplace Hazardous Materials Information System (WHMIS) is Canada's national hazard communication standard. The key elements of the system are hazard classification, cautionary labelling of containers, the provision of (material) safety data sheets ((M)SDSs) and worker education and training programs.

D. PROCEDURES

- 1. ACCESS TO (M)SDS
 - (M)SDSs will be made available to employees online in the <u>City of Winnipeg SDS</u> <u>Access System</u>.
 - (M)SDSs will be available in hardcopy in workplaces where internet access is unavailable.
- 2. ASSESSMENTS
 - Safety risk associated with the use, handling, storage and disposal of chemical and biological substances, as well as the potential for uncontrolled releases or spills must be assessed by supervisors in consultation with:
 - o employees
 - the safety and health committee
 - o departmental safety resources (as required)
 - Assessments must be:
 - o conducted in reference to information provided on the (M)SDS.
 - o documented using the Site Specific Risk Assessment and Control Worksheet.
 - updated when changes to the products, procedures or the workplace create a safety risk.

3. CONTROL MEASURES

- If a safety risk associated with a chemical and/or biological substance has been identified, control measures must be implemented to eliminate or minimize the risk.
- Control measures must include the development in writing and implementation of safe work procedures.
- Safe work procedures must:
 - Be specific for each substance and activity.
 - Be documented using the <u>Safe Work Procedure Template</u>.
 - Include procedures for the safe use, handling, storage and disposal of substances.
 - Include requirements for use of control measures such as personal protective or other equipment.
 - o Include procedures for responding to uncontrolled releases or spills.
 - o Be made available to employees and the safety and health committee.
 - Be revised at least every three years or sooner if circumstances change to create safety risk.

- 4. TRAINING
 - All employees who work with or may be exposed to chemical and/or biological substances must be instructed on:
 - Workplace Hazardous Materials Information System (WHMIS)
 - How to access (M)SDSs
 - Safe work procedures
- 5. UNCONTROLLED RELEASES OR SPILLS
 - Will be immediately reported and investigated according to the <u>Workplace Safety</u> <u>Incident Protocol.</u>

E. KEY ROLES AND RESPONSIBILITIES

Chief Administrative Officer (CAO)

- Officially endorses the Chemical and Biological Substances Protocol.
- Ensures compliance with this protocol by holding departments accountable.

Chief Officers/ Department Heads

- Ensure employees receive appropriate training and resources to comply with this protocol.
- Hold managers, supervisors and employees accountable for assessing the risk associated with chemical or biological substances and implementing control measures including safe work procedures.

Director of Human Resources

Directs or approves the implementation of necessary changes to this protocol.

Supervisors

- Assess chemical and biological hazards in consultation with employees and safety and health committees.
- Identify and implement appropriate control measures for chemical and biological hazards including safe work procedures.
- Make safe work procedures available to employees and the safety and health committee.
- Ensure that employees are provided with the required equipment and training to work safely.
- Ensure (M)SDS are readily accessible to safety and health committee members and employees who may be exposed to a controlled product.
- Ensure employees comply with the Chemical and Biological Substances Protocol and safe work procedures.

Workplace Safety and Health Committees

- Assist supervisors and employees in the assessment of chemical and biological hazards and the implementation of control measures including safe work procedures.
- Recommend chemical and biological safety training.

Departmental Safety Resource Staff

- Assist supervisors in the assessment of chemical and biological hazards and the implementation of control measures including safe work procedures.
- Recommend corrective actions to prevent safety incidents.

Occupational Health Branch (of CSS)

- Respond to employee chemical and biological health concerns.
- Develop and implement health surveillance programs as required.

Organizational Safety and Occupational Hygiene Branch (of CSS)

- Provide consultation to the departments regarding chemical and/or biological hazards and control measures.
- Provide occupational hygiene support and expertise to the organization.
- Coordinate and maintain the (M)SDS Access System.
- Research, develop and recommend city-wide systems and programs to enhance chemical and biological safety.

Employees

- Notify their supervisor of chemical and biological hazards.
- Recommend control measures including safe work procedures to eliminate or minimize chemical and biological safety risks.
- Follow the Chemical and Biological Substances Protocol and established safe work procedures.
- Immediately report workplace safety incidents to their supervisor.
- Make recommendations to their supervisors to prevent chemical and biological safety incidents.
- Participate in WHMIS and other training as required.
- Obtain, review and apply WHMIS information.

F. REFERENCES AND LINKS TO RELATED PROCEDURES

- HR-006 Safety, Health and Organizational Wellness
- HR-010 City of Winnipeg Organizational Safety Governance
- Asbestos Procedures and Guidelines
- Contractor Safety Procedures
- Lockout / Tagout Procedures
- Organizational Safety Code of Practice
- Organizational Safety Performance Measurement and Reporting Protocol
- <u>Respiratory Protection Procedures</u>
- Workplace Immunization Procedures
- Workplace Safety Incident Protocol

- Workplace Safety Inspection Protocol
- Workplace Safety Program Review Protocol

G. AMENDMENTS

Supersedes Chemical Products Code of Practice, 2004 Supersedes Chemical and Biological Substances Protocol, 2013

H. REVIEW PROCESS

The Director of Human Resources is accountable for implementing and reviewing this Protocol.

I. KEY CONTACTS

Manager, Organizational Safety Services Manager, Safety, Health and Occupational Wellness Director, Human Resources



CONTRACTOR SAFETY A SHARED RESPONSIBILITY

PROCEDURES TO PROTECT SAFETY AND HEALTH IN THE WORKPLACE DURING CONTRACT WORK.

The following provides general information only. Should there be any inconsistency between the applicable contract and the contractor safety program information, the contract shall prevail.

Prepared by: Corporate Support Services Department Human Resource Planning and Services Division Organizational Safety and Occupational Hygiene Branch Last Revised: October 2018



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INTRODUCTION

Procedures to protect safety and health in the workplace during contracted work are required by the *Manitoba Workplace Safety and Health Act.* These procedures must include criteria for evaluating and selecting contractors as well as monitoring contract work.

This document outlines the process used to evaluate, select and monitor contractors working for the City of Winnipeg and applies to:

- Construction contract with an estimated cost exceeding \$100,000.00
- Any contract work deemed as high safety risk by the City

The contract remains the governing document outlining the agreement between the parties and is not superseded or replaced by these procedures.



The City of Winnipeg's contractor safety program consists of three main elements:

- 1. Evaluation and selection of the contractor based on criteria established by the City.
- 2. Development of Safe Work Plans by the contractor which are reviewed by the City; and
- 3. Monitoring to ensure that contract work proceeds safely and according to agreed requirements.

GENERAL DUTIES

The term **"contractor"** used in this information refers to the person (includes a partnership or an unincorporated association) who has been contracted <u>by the City</u> to direct the activities of one or more employers or self-employed persons involved in work.

In cases where a prime contractor has been identified for a construction project, contractor

requirements as outlined in this information apply to the prime contractor, who in turn is responsible to ensure every person involved in work on a project (including subcontractors) complies with the *Workplace Safety and Health Act & Regulations.*

For more information on the legal duties of employers, prime contractor and contractors see the <u>Manitoba Workplace Safety and Health Act.</u>

ROLES & RESPONSIBILITIES

Materials Management/ Legal Services

- Initiates the solicitation of competitive offers and manages the procurement of contracted services.
- Ensures appropriate safety and health program evidence is provided and evaluated prior to contractor selection.
- Manages the contractor selection process.
- Participates in regular contractor safety committee meetings to provide feedback, identify areas of concern and share information about contractor safety.

Contract Administrator

- Acts as the primary contact with the contractor on matters of safety and health in consultation with the departmental safety resource.
- Submits evidence of acceptable safety and health programs on behalf of the contractor to the Organizational Safety and Occupational Hygiene Branch for their records.
- Provides contractors with safety and health information (e.g. safety orientation, site tours) and ensures effective ongoing communication.
- Receives and reviews Safe Work Plans submitted by contractors.
- Monitors contractors in reference to Safe Work Plans.
- Takes appropriate corrective action to address unsafe work practices as necessary.
- Recommends termination, suspension or debarment of contractors in cases of breach of contract leading to unsafe work conditions.
- Provides information regarding contractor activity to required on-site City stakeholders (e.g. supervisor of area where contract work is to be performed).
- Facilitates the sharing of information related to contractor safety.

Organizational Safety & Occupational Hygiene Branch

- Provides support to the City's administration on contractor safety issues.
- Receives and reviews evidence of acceptable safety and health programs.
- Maintains listings of prequalified contractors and acceptable consultants.
- Recommends changes in direction, systems and/or processes related to the contractor safety program.
- Facilitates regular contractor safety committee meetings with departmental resource staff to provide feedback, identify areas of concern and share information about contractor safety.

Departmental Safety Personnel

- Provides safety advice and support to contract administrators, supervisors, workers and safety committee members.
- Supports the contractor safety program and related systems, processes and activities.
- Identifies and responds to emerging trends and internal/external risks specific to contractor safety and recommends processes and systems to respond to the issue.
- Participates in regular contractor safety committee meetings to provide feedback, identify areas of concern and share information about contractor safety.

Contractor

- Ensures a safe and healthy work environment at work sites.
- Submits evidence of acceptable safety and health programs to the contract administrator, or if a contract administrator has not yet been assigned, to the Organizational Safety and Occupational Hygiene Branch.
- Prepares and submits Safe Work Plans specific to the site/workplace to the contract administrator.



- Ensures effective ongoing communication with contract administrator concerning safety and health.
- Complies with all contractual and regulatory requirements concerning safety and health.
- Cooperates with all persons exercising a duty imposed by the contract and by the *Workplace* Safety and Health Act.
- Monitors safety as work progresses and responds to any issues in a timely fashion.
- Responds to safety concerns raised by contract administrators/City staff.
- Ensures appropriate corrective action is taken to address unsafe acts and conditions.

Prime Contractor-Construction Project

In cases where a prime contractor has been employed for a construction project, the following apply **in addition** to those outlined for contractors:

- Ensures every person involved in work on a project complies with the *Workplace Safety and Health Act & Regulations.*
- Co-ordinates, organizes and oversees the performance of all work at the construction project site.

Supervisor (City of Winnipeg)

- Takes immediate corrective action to address unsafe situations where such actions do not endanger themselves or others.
- Informs contract administrator and/or safety resources of safety and health concerns related to contract work.
- Ensures safety hazards are addressed before allowing work to continue.
- Consults with departmental safety resources when required.

Employees (City of Winnipeg)

- Takes immediate corrective action to address imminently dangerous situations where such actions do not endanger themselves or others.
- Informs their supervisors of safety and health concerns related to the contract work.

Contractor Safety Committee (City of Winnipeg)

- Reviews emerging trends, and internal/external contractor safety risks within the organization and departments.
- Recommends priorities and action plans to deal with contractor safety issues.

CONTRACTOR EVALUATION & SELECTION

Contractor safety and health programs are evaluated independently to determine if they meet or exceed all elements required of a safety program under the *Workplace Safety and Health Act.*

Option 1: Safe Work Certified

A program is considered acceptable if it has been certified to Safe Work Manitoba's Safe Work Certified standard (e.g. COR™/SECOR™)

Option 2: Independent Review

Contractors can meet the contractor safety requirements through evaluation of their safety and health program by an <u>independent</u>. <u>consultant</u> using the <u>Contractor Safety Program</u> <u>Evaluation Document</u>. The template is based on the requirements of Manitoba's *Workplace Safety and Health Act*. Independent workplace safety and health consultants satisfactory to the City include persons who:

- Have been approved to conduct independent audits for safety and health certification programs meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g. COR[™]/SECOR[™])
- Hold professional designations such as Canadian Registered Safety Professional (CRSP) or equivalent.

Contractors who submit proof of an acceptable review are listed on the <u>Pre-qualified Contractors</u> <u>List</u>. These programs are considered acceptable to the City for a three year period from the date of written confirmation.

KEY MESSAGE:

The City of Winnipeg has established a process to evaluate contractors based on their ability to comply with Safety and Health Legislation.

SAFE WORK PLANNING

Prior to work beginning, safety and health information is exchanged between the contract administrator and the contractor including the evaluation of hazards and the steps required to minimize those hazards. This information is documented by the contractor and provided to the City of Winnipeg in the form of a Safe Work Plan at least 5 days prior to work beginning.

Safe Work Plans demonstrate that a contractor:

- Is aware of the hazards associated with the work; and
- Have appropriate control measures in place to deal with them.

Safe Work Plans are reviewed by the contract administrator with the assistance of the departmental safety resource as required.

KEY MESSAGE:

Safe Work Plans are provided to the City by the contractor to ensure procedures are in place to deal with hazards.

Contact Information

The contract administrator and the contractor must ensure effective ongoing exchange of safety information as well as notification in the event of an incident or emergency situation.

It is recommended that project contacts are posted at the job site for contract work taking place at City of Winnipeg facilities to ensure this information is available to supervisors and employees working in the area.

Site Orientation

Before contract work begins, site-specific safe work and emergency procedures are communicated to contractors by contract administrators in consultation with departmental safety resources as needed.

Contractors are also briefed on roles and responsibilities as well as the consequences of not adhering to the Safe Work Plan or any site-specific safe work procedures. This would include the corrective action that will be taken to stop unsafe work and the subsequent remedial measures.

This is consistent with the duty to provide information that may affect the safety and health of a person at the workplace as per the *Manitoba Workplace Safety and Health Act.*

A sample contractor safety orientation checklist has been included as <u>Appendix A.</u>

Hazard Communication

Effective ongoing communication between the contract administrator, the contractor and any subcontractor groups is essential to identify situations that may arise during the course of work not originally discussed or identified. It is also important that changes to Safe Work Plans be made and communicated on an on-going basis as required.

Safety is an integral part of pre-work discussions and project meetings.

MONITORING CONTRACTOR SAFETY

Safety is reviewed along with other aspects of contract work during site visits by the contract administrator. This is done to ensure that contractors follow the safety requirements of the City of Winnipeg as well as the Safe Work Plans for the work being done.

Contract administrators should consult with their departmental safety resource if they have questions or need assistance with the monitoring process.

The frequency of monitoring is determined by:

- The nature of work and the risks involved.
- The contractor's familiarity with the work being done and whether the work was done previously by the contractor for the City and without incident.
- The level of knowledge and the experience the contractor has with respect to the safe work and emergency procedures.
- Past safety performance of the contractor.

Safety monitoring can be random or announced, narrow in focus or more encompassing depending on the type of work being performed. If unsafe work is observed, corrective action is taken by the contract administrator or others.

Corrective action can range from work stoppage until appropriate control measures are implemented up to and including termination of the contract in extreme situations.

KEY MESSAGE:

The safety performance of contractors is monitored by the City using the contractor's Safe Work Plan.

RESPONDING TO SAFETY CONCERNS & FOLLOW-UP

If a City employee becomes aware of a safety concern involving contract work the first step is always to notify their direct supervisor. It is the supervisor's responsibility to evaluate and respond to the concern in a timely manner in consultation with safety resources and the contract administrator.

Contractors have the same obligations to their employees as any other employer in Manitoba. Where safety issues arise regarding contractor employees the concern will always be taken to the supervisor of the employees involved.

The City of Winnipeg has the right to require the contractor to resolve any safety issue raised to the City's satisfaction before work continues. This decision belongs to the contract administrator responsible for the project with support from any safety resource needed.

In circumstances where contract work could result in serious and imminent harm to a person, all employees are encouraged to take immediate corrective action to address the situation in a way that does not endanger themselves or others. This may mean stopping the work in progress and contacting their supervisor to address the situation with all stakeholders.

KEY MESSAGE:

Circumstances that could result in serious harm must be immediately addressed.

CONTRACTOR SUSPENSION & DEBARMENT

The City of Winnipeg reserves the right to suspend and debar a contractor for unacceptable performance in accordance with the City of Winnipeg's Materials Management Policy.

Contract administrators are responsible for recommending appropriate corrective action for unacceptable safety performance.

Additional information can be found at: http://citynet/matmgt/debar.stm

FURTHER INFORMATION

- Additional information on the contractor safety program at the City of Winnipeg can be found at: http://www.winnipeg.ca/matmgt/Safety/default.stm
- Visit the following site for more information regarding the Manitoba Workplace Safety and Health Act & Regulations: http://safemanitoba.com/default.aspx



CONTRACTOR SAFETY ORIENTATION CHECKLIST

Contract Number:	
Contractor Name:	Date:
Contractor Representative:	Phone:
Contract Administrator:	Phone:
Worksite Address:	

Review of Safety Standards, Codes of Practice and Procedures (as applicable)				
Organizational Safety Code of Practice	First aid procedures & contacts			
Project/ Emergency contacts	Workplace safety incident procedures			
Safe work procedures	Chemical safety & WHMIS			
Personal protective equipment (PPE)	Respectful Workplace Standard			
Fire safety / Emergency procedures	Use of entrances and rest rooms			
Site security/Visitor procedures	Hot Work Permit requirements			
Access restrictions and signs	Use of tools & equipment			
Fall protection & overhead work	Lock-out/Tag-out procedures			
Reporting & follow-up for hazards	Confined Space Entry			
Alcohol and Drug Standard	Workplace Violence Prevention and Response Standard			
Review of Addition	onal Safety Items			

Signature of Contractor

Signature of Contract Administrator

As per the Manitoba Workplace Safety and Health Act, all information must be disclosed that may affect the safety and health of a person at the workplace.



NOTES:

SAFE WORK PROCEDURE	Job: PPE – Fall Arrest System			Winning
Division: Water Services	Branch: All			Winnipeg Water Services Division Water and Waste Department
Created by: WSD SWP Facilitating Group	Created Date: April 2, 2019	Revision Date:	Do	cument No. 70

Approved by: #176 Water Distribution Sa	fety Committee		
Management Co-Chair Zelijko Bodiroga Louis Rivard	Worker Co-Chair Nic James Jordan Melnyk		

If an incident occurs:	
Incident Type:	Procedure
Emergency	Call 911 immediately and report the incident to your supervisor
Non critical incident	Report the incident to your supervisor
Equipment malfunction	Report the incident to your supervisor

Hazards	
Flying Debris	
Musculoskeletal Injuries (MSI)	
Slips / Trips / Falls	
Chemical Splash	
Arc Flash	

Training	Personal Protective Equipment (PPE)	Tools/Supplies
Fall Arrest WHMIS 2015 Applicable SOPs and SWPs	Fall Harness Lanyard CSA Protective Footwear CSA Hearing Protection CSA Safety Eyewear CSA Hard hat Weather Appropriate Hi-Vis Clothing	First Aid Kit Anchor Point

Safe A	pproach
Fall Ar	rest System
1)	The supervisor is responsible for ensuring that all workers are trained & understand this procedure.
2)	The supervisor shall ensure that all employees under their direction use a complete fall arrest system when a hazard of falling 3 meters or more exists.
3)	All employees who require a fall arrest system shall be instructed in the inspection, donning and use of all components before the worker uses the system.
4)	The employee is responsible for ensuring that a complete fall arrest system is used where there is a hazard of falling 3 meters or more & that this procedure is followed as directed by the supervisor.
5)	Fall arrest equipment must be used by trained personnel only, & all equipment should be inspected by the user before each use.
6)	The fall arrest system consists of an approved full body harness and an approved lanyard.
7)	All fall arrest system components shall be CSA approved and readily identified.

- 8) The length of the lanyard or the location of the anchor shall be so arranged that the worker can fall no farther than 1.2 meters. A retractable harness- mounted lanyard is the most acceptable method.
- 9) All fall arrest components shall be stored properly and kept in good condition.
- 10) Safety belts, harnesses, lanyards and lifelines shall not be knotted and shall not be allowed to become knotted or damaged.
- 11) Never wrap lanyards around sharp or rough anchor points.
- 12) Fall arrest equipment must not be altered in anyway.
- 13) Any equipment subjected to a fall must not be used again.
- 14) All synthetic materials must be protected from slag, hot sparks, open flames or other heat sources.
- 15) Maximum working load is 310 pounds, unless otherwise labeled.
- 16) The anchor or tie off point must be capable of supporting 5,000 pounds per worker.

END

Reference	Disclaimer
The Manitoba Workplace Safety and Health Act W210 The Manitoba Workplace Safety and Health Regulations 217/2006 - Part 2 General Duties - Part 4 General Workplace Requirements - Part 5 First Aid - Part 6 Personal Protective Equipment - Part 14 Fall Protection - Part 16 Machines, Tools, and, Robots - Part 35 WHMIS 2015 Workplace Bulletins # 247 Recognizing MSI Risks Workplace Bulletins # 253 Musculoskeletal Injury Risks Identification	This document is uncontrolled when printed; See <u>http://citynet/ww/HR/SH/default.stm</u> for the most current SWP. Government regulations take precedence; all workers should be familiar with these regulations. This procedure must be reviewed any time the task, equipment or materials change and at a minimum every three years.

SAFE WORK PROCEDURE	Job: Fall Rescue Pla	in		
Division: Water Services	Branch: All			Winnipeg Water Services Division Water and Waste Department
Created by: WSD SWP Facilitating Group	Created Date: April 2, 2019	Revision Date:	Do	cument No. 47

Approved by: #176 Water Distribution Sa	fety Committee		
Management Co-Chair Zelijko Bodiroga Louis Rivard	Worker Co-Chair Nic James Jordan Melnyk		

If an incident occurs:	
Incident Type:	Procedure
Emergency	Call 911 immediately and report the incident to your supervisor
Non critical incident	Report the incident to your supervisor
Equipment malfunction	Report the incident to your supervisor

Hazards	
Inhalation of Chemicals / Toxins	Suspension Trauma
Inhalation of Smoke	
Slips / Trips / Falls	

Training	Personal Protective Equipment (PPE)	Tools/Supplies
Fall Protection First Aid WHMIS 2015 Applicable SOPs and SWPs	Gloves CSA Protective Footwear CSA Hearing Protection CSA Safety Eyewear CSA Hard hat Weather Appropriate Hi-Vis Clothing Fall Harness/Lanyard	First Aid Kit

Safe Approach

Fall Rescue Plan

Self-Rescue:

Under no circumstances should self-rescue be initiated until the competent person on site assesses the fall victim's physical and mental condition. It is nearly impossible to verbally dissuade a fall victim from attempting self-rescue if he or she is eternalized, athletic and has a natural take-charge mentality.

If the person working at heights makes proper choices in the equipment to be used and uses that equipment properly the fallen worker may perform a self-rescue which will include:

- 1. A climb back up to the level from which he fell (a few inches to two or three feet)
- 2. Return to the floor or ground and take all components of the fall protection system out of service
- 3. Obtain medical treatment as may be required
- 4. Bag and tag those components with the name, date and activity at the time of the fall and complete an incident report.
- 5. Return the used components in the bag to the office for inspection

- 1. A worker will get into the aerial lift and make sure that there is a second adjustable lanyard or a 3 foot lanyard available for the rescued worker
- 2. The aerial lift will be maneuvered into position and raised up under the worker to be rescued
- 3. Attach the second lanyard in the aerial lift to the worker being rescued
- 4. Disconnect the rescued worker from the impacted fall arrest equipment
- 5. Lower the worker to the ground
- 6. Take care of the rescued worker medically as needed.
- 7. Bag and tag those components with the name, date and activity at the time of the fall and complete an incident report.
- 8. Return the used components in the bag to the office for inspection.

Extension Ladders:

- 1. Obtain an extension ladder of sufficient height and place the ladder under the fallen ladder. Ensure that the ladder extends sufficiently above the height of the fallen worker.
- 2. The fallen worker will then climb onto the ladder to support himself.
- 3. An assessment of the fallen worker will then be made to determine if he should attempt to climb down the ladder or wait for assistance.
- 4. If the worker can climb down the ladder, then have the worker release the rope grab and climb down the ladder
- 5. If the worker cannot climb down the ladder have him wait until another means of assistance is available (man lift, 911).
- 6. Take care of the rescued worker medically as needed.
- 7. Bag and tag those components with the name, date and activity at the time of the fall and complete an incident report.
- 8. Return the used components in the bag to the office for inspection.

END

Reference	Disclaimer
The Manitoba Workplace Safety and Health Act W210 The Manitoba Workplace Safety and Health Regulations 217/2006	This document is uncontrolled when printed; See <u>http://citynet/ww/HR/SH/default.stm</u> for the most current SWP.
 Part 2 General Duties Part 4 General Workplace Requirements Part 5 First Aid Part 14 Fall Protection Part 35 WHMIS 	Government regulations take precedence; all workers should be familiar with these regulations. This procedure must be reviewed any time the task, equipment or materials change and at a minimum 3 years



JOB SAFETY PLANNING FORM

Assess hazards before beginning work and as hazards change

Water and Waste Department	Job	Date	Time	Crew # / Job #
SITE EMERGENCY Mu RESPONSE	ister (Meeting) Point	lob Location	Emergency #	Utility #

Have the applicable Safe Work Procedures been reviewed by all employees?
Ves
No If no, please choose one of the following:

Not available to view on-site.
There is not one created.
Other:

If no Safe Work Procedure has been created for this job, please contact your supervisor before starting work.

Third parties and subcontractors on site have reviewed this job safety plan and are aware of all hazards and controls in place.
 All materials, tools and equipment are available and inspected for use.

IDENTIFIED HAZARD	HAZARD RANKING	CONTROL(S)	CONTROL TO BE COMPLETED BY	COMPLETED
Slips / Trips				
Manual Lifting / Ergonomics				

Other Safety Concerns:		

DO NOT SIGN UNTIL YOU UNDERSTAND AND AGREE WITH THIS JOB SAFETY PLAN

Employee Signature

My signature confirms that I have reviewed the job safety plan with the job leader and affected employees, and am satisfied that as long as the work is done according to the plan, it will be done safely and according to industry standards and the law.

Job Leader Signature	Pr int Name	Signat ur e	Management Review Initials	Init ial s

My signature confirms that I have reviewed the job safety plan with workers/helpers/contractors, and am satisfied that as long as the work is done according to the plan, it will be done safely and according to industry standards and the law.

	En inconstal Uppende	Emeranda Unanda	
Physical/Mechanical Hazards	Environmental Hazards	Ergonomic Hazards	Critical Task:
Backhoe operation	Air quality	Awkward posture	Abatement Activities
Electrical power source	Animal/insect bite	Overexertion	Chemical Usage
Explosion, flame, fire	Asbestos	Repetitive motion	Confined Space Work
Fall from height	Biological/bacteria	Vibration	Construction Projects
Guard, barricade – improper/missing	Flooding	Safe Work Guidelines	Crane and Hoist Usage
Handling- pinch, crush, cut, shear, stab	H2S	Eye wash facilities provided	Electrical Work
Hand tools - not powered	Heat/cold exposure	First aid	Excavations
Hand tools - powered	Housekeeping	Harnesses inspected	Hazardous Substances
Improper hoist/lift/rigging	Leachate	Hoist/winch inspected	High Noise Activities
Overhead work	Low light	LOTO guidelines followed	Hot Work
Slips/trips/falls – snow, ice, rain	Noise	PPE – inspected and being worn	Respiratory Hazards
Traffic control – improper/missing	Spill/escape of substance	Trained to use tools and equipment	Stored Energy
Trench – soil and spoil pile instability	Weather conditions	Tools/equipment/vehicles inspected	Working at Heights
Utility contact – overhead/buried			

		Severity of Consequence				
		Negligible	Minor	Serious	Fatal	Catastrophic
	Most Likely	1	2	3	4	5
Likelihood Occurren	Possible	1	2	3	4	4
liho curr	Conceivable	1	2	2	3	3
	Remote	1	1	2	2	2
of	Inconceivable	1	1	1	1	1

Likelihood of Occurrence	Severity of Consequence	Hazard Risk Assessment Scoring Syste		Risk Assessment Scoring System
Inconceivable = Practically Impossible	Negligible = Minor Injury		1	Very Low Risk
Remote = Unlikely	Minor = First Aid		2	Low Risk
Conceivable = Quite Possible	Serious = Hospital or Doctor Required		3	Moderate Risk
Possible = Can be Expected	Fatal = Death		4	High Risk
Most Likely = Certain to Occur	Catastrophic = Multiple Deaths		5	Very High Risk

Was the work completed without incident? Yes \square No \square

If No: Was the supervisor called? Yes

No

Is there or will there be additional reporting documentation as a result of the incident?

□ Blue card

Green card

Other:____

*Refer to WWD Safety and Health Bulletin "Workplace Safety Incidents" for reporting procedure & information *

Comments:



Lockout/Tagout (LOTO) Procedures

ALL ENERGY SOURCES TO MACHINERY, EQUIPMENT OR PROCESSES SHALL BE DE-ENERGIZED, LOCKED OUT AND TAGGED OUT TO PROTECT AGAINST ACCIDENTAL OR INADVERTENT OPERATION WHEN SUCH OPERATION COULD CAUSE A WORKPLACE SAFETY INCIDENT.

> AUTHORITY FOR PROCEDURES: MANAGER, SAFETY, HEALTH AND OCCUPATIONAL WELLNESS

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A. PURPOSE

- Prevent injury due to accidental or inadvertent release of hazardous energy.
- Establish responsibility for implementing lockout/tagout procedures.
- Ensure compliance with the Workplace Safety and Health Act and Regulations.

B. DEFINITIONS

Affected person means an employee whose job requires them to operate or monitor a system, or work in an area in which servicing or maintenance is being performed under LOTO.

Authorized person means an individual who is qualified to control hazardous energy sources because of their knowledge, training, and experience and has been assigned to engage in such control.

De-energization means a process that is used to disconnect and isolate a system from a source of energy in order to prevent the release of that energy.

Energy Isolating Device means a mechanical device that physically prevents the transmission or release of energy, including but not limited to: a manually operated disconnect switch, circuit breaker, line valve, or block (Note: push buttons, selection switches and other circuit control switches are not considered energy-isolating devices).

Hazardous Energy means any electrical, mechanical, hydraulic, pneumatic, chemical, nuclear, thermal, gravitational, or other energy that can cause harm.

Lockout means placement of a lockout device on an energy-isolating device.

Locking Device means any device that has the ability to secure an energy-isolating device in a safe position.

System means a machine, equipment and/or process.

Tagout means a labelling process that is used when lockout is required.

C. PRINCIPLES

- When a system is serviced, repaired, tested, cleaned, maintained, unjammed or adjusted, no employee shall perform work on the system until it has come to a complete stop and the employee performing work on the system has:
 - locked out and tagged out the system and removed and rendered safe any hazardous condition; or
 - otherwise rendered the system inoperative in a manner that prevents reactivation and provides protection that is equal to, or greater than the lockout/tagout described above.
- Employees will not perform work on a system that is to be serviced, repaired, tested, cleaned, maintained, unjammed or adjusted until:
 - the system is tested to ensure that it is de-energized; and
 - the employee is assured that it is inoperative.

The basic steps for locking and tagging out a system include:

- 1. Prepare for Shutdown
- 2. Notify Affected Personnel
- 3. Properly Shut Down Machine
- 4. Isolate all Energy Sources
- 5. Dissipate Residual/Stored Energy
- 6. Apply Lock-out Devices, Locks and Tags
- 7. Verify Total De-energization of all Energy Sources
- 8. Perform Maintenance or Service Activity
- 9. Remove Lockout/Tagout Devices

All of these steps must be accomplished in accordance with established LOTO Procedures (see below).

These steps are described in detail in <u>APPENDIX A – Basic Steps of Locking and Tagging</u> out a System.

D. PROCEDURES

- 1. ENERGY ISOLATING DEVICES
 - Systems will be equipped with energy isolating devices which are identifiable, accessible and lockable in the off position only.
 - Energy-isolating devices must be designed to accept a lockout device that will secure them in the isolated position.

- Energy isolation devices will be locked out when:
 - o a guard is removed or a safety device rendered inoperable.
 - there could be contact with moving parts, energized circuits, or mechanical energy.
 - there could be release of stored energy or a pressurized system, or the discharge of a gas or liquid.
- When locking out a system, a lock and tag shall be applied to each energy isolating device.
- Locks shall:
 - be issued by The City of Winnipeg.
 - be of consistent design and colour throughout the trade/workgroup/facility.
 - be labelled to identify the owner of the lock.
 - have one single unique key controlled by the owner of the lock.
 - only be used in the facility for lockout.
- Tags shall:
 - o be applied to at least one lock on the affected machine.
 - be labelled with:
 - the person's name and department.
 - reason for lockout.
 - be blaze orange in colour.

Note: A tag must be applied to each energy source if locks are not labeled with the person's name.

2. LOTO PROCEDURES

- All departments will;
 - identify sources of hazardous energy.
 - ensure energy sources have isolating devices which are identifiable, accessible and lockable in the off position only.
 - \circ ensure energy sources have a means to release or control stored energy.
 - o document and implement LOTO procedures for each source.
 - o provide necessary instruction on LOTO procedures.
 - o ensure LOTO procedures are readily accessible to employees.
- LOTO procedures will identify:
 - energy sources in need of control.
 - o authorized persons.
 - o location of energy sources and isolating devices.
 - o personal protective and/or other safety equipment required.
 - how to safely:
 - lock out and/or release energy.
 - verify that the procedure was successful.
 - maintain the lockout if extended into a new work shift.

 safe work practices related to any additional hazards associated with the system (e.g. hazardous substances).

APPENDIX B – Sample LOTO Procedure

- All authorized and affected persons will be provided instruction on LOTO procedures.
- 3. REMOVAL OF LOCKS AND EMERGENCY SITUATIONS
 - Only the person who applied a lock may remove that lock.
 - If a person leaves the facility and leaves their lock on a machine, an attempt must be made to contact that person to determine why the lock was left on the machine.
 - If required, a lock may be removed by a supervisor, providing the following procedure is followed:
 - o attempts have been made to contact the owner of the lock.
 - it is determined that the machine is either safe to turn on or a replacement lock from someone of the same trade has been placed on the machine.
 - an <u>Emergency Lock Removal Form</u> has been completed and provided to the departmental safety resource.
 - the owner of the lock is notified as soon as possible.
- 4. MULTIPLE PERSON PROTECTION
 - When more than one person is working on a machine, a hasp shall be used and each person must apply their own lock to each energy isolating device.
 - Hasps may be linked together to allow for large group lockout scenarios.

Note: use of a group lockout box is also acceptable.

5. SHIFT TRANSFER PROCEDURE

- When work is being performed beyond the end of a shift, the lockout shall be transferred from personnel on the outgoing shift to personnel from the incoming shift:
 - A designated shift transfer person (e.g. supervisor) must place their locks on each isolating device.
 - Once the shift transfer person applies their locks, other personnel's locks may be removed.
 - Shift transfer person must remain on-site until the incoming shift arrives.
 - Person on the incoming shift will take responsibility for the lockout and apply their locks.
 - The shift transfer person's locks may be removed.
- At all times, there must be at least one lock on each energy isolating device.

- 6. WORKING ON ENERGIZED EQUIPMENT
 - Departments must develop and implement safe work procedures for tasks where work on energized equipment is necessary (e.g. regular set-up, adjustment or cleaning of a machine which cannot be performed with energy removed).
 - Employees who work on energized equipment will be provided instruction on associated safe work procedures, including hazards, controls and how to perform the job safely.
 - If troubleshooting or repair is required on energized equipment for which there is no safe work procedure, the person who will be doing the work must:
 - o complete the <u>Work on Energized Equipment Form</u>.
 - o post the completed form on the control panel of the equipment being serviced.
 - provide the form to their supervisor when the work is complete.

E. KEY ROLES AND RESPONSIBILITIES

Authorized Persons

- Identify sources of hazardous energy and methods of control.
- Ensure hazardous energy sources have energy isolating devices which are identifiable, accessible and lockable in the off position only.
- Ensure hazardous energy sources have a means to control stored energy.
- Develop and follow LOTO procedures
- Notify affected persons of LOTO procedures.
- Inform affected employees when LOTO will impact operations.
- Inform their supervisor immediately if lock out is not effective

Supervisors

- Identify sources of hazardous energy.
- Ensure hazardous energy sources have isolating devices which are identifiable, accessible and lockable in the off position only.
- Ensure hazardous energy sources have a means to control stored energy.
- Ensure LOTO procedures are developed, verified, implemented and followed for systems in their area.
- Provide necessary personal protective equipment and any other equipment required for LOTO.
- Ensure that only authorized persons perform LOTO.
- Ensure employees receive necessary instruction on LOTO.
- Ensure that employees under their supervision follow LOTO procedures when required.

Departmental Safety Resources

Assist departments in recognizing sources of hazardous energy and developing LOTO procedures.

- Recommend actions to prevent safety incidents.
- Provide instruction on LOTO procedures.
- Provide support/consultation to supervisors as requested.

Workplace Safety and Health Committees

 Assist supervisors and employees in recognizing sources of hazardous energy and implementing control measures including LOTO procedures.

Affected and Other Employees

- Assist in the development of LOTO procedures.
- Follow LOTO procedures.
- Under no circumstances attempt to re-start any system that is LOTO or attempt to remove the LOTO on any system.
- Report any concerns associated with LOTO procedures and/or equipment.

Contractors

- Follow LOTO procedures.
- Under no circumstances attempt to re-start any system that is LOTO or attempt to remove the LOTO on any system.
- Report any concerns associated with LOTO procedures and/or equipment.

F. REFERENCES AND LINKS TO RELATED PROCEDURES

HR-006 Safety, Health and Organizational Wellness HR-010 City of Winnipeg Organizational Safety Governance Organizational Safety Code of Practice Workplace Safety Incident Protocol Workplace Safety Inspection Protocol Contractor Safety Procedures Chemical and Biological Substances Protocol Working Alone Protocol Organizational Safety Performance Measurement and Reporting Protocol Workplace Safety Program Review Protocol Respiratory Protection Procedures Hearing Conservation Procedures

G. AMENDMENTS

None.

H. KEY CONTACTS

Manager, Organizational Safety Services Manager, Safety, Health and Occupational Wellness

APPENDIX A – Basic Steps of Locking and Tagging out a System

- **1. Prepare for Shutdown** Before a shutdown can take place, all sources of hazardous energy must be identified and methods of control established. This involves development of specific LOTO procedures that outline how to lock and tag out a system safely.
- Notify Affected Personnel Authorized persons (or their supervisors) must advise those affected of the reasons for LOTO and any potential impacts on operations or monitoring. They must identify who is responsible for LOTO and who to contact for more information.

This includes:

- a. What is going to be locked/tagged out?
- b. Why it is going to be locked/tagged out?
- c. For approximately how long will the system be unavailable?
- d. Who is responsible for the lockout/tag out?
- e. Who to contact for more information?
- **3. Properly Shut Down Machine** If the system is operating it must be shutdown in accordance with manufacturer instructions. This involves ensuring controls are in the off position, and verifying that all moving parts such as flywheels, gears, and spindles have come to a complete stop.
- **4. Isolate all Energy Sources** All energy sources must be isolated and residual energy dissipated in accordance with LOTO procedures.
 - a. *Electrical energy* Switch electrical disconnects to the off position. Visually verify that the breaker connections are in the off position. Lock the disconnects into the off position.
 - b. *Hydraulic and Pneumatic potential energy* Set the valves in the closed position and lock them into place. Bleed off the energy by opening the pressure relief valves, then closing the airlines.
 - c. *Mechanical potential energy* carefully release energy from springs that may still be compressed. If this is not feasible, block the parts that may move if there is a possibility that the spring can transfer energy to it.
 - d. *Gravitational potential energy* Use a safety block or pin to prevent the part of the system that may fall or move.
 - e. Chemical energy locate chemical supply lines to the system and close and lockout the valves. Where possible, bleed lines and/or cap ends to remove chemicals from the system.

5. Dissipate Residual/Stored Energy – examples include:

a. *Electrical energy* - To find a specific method to discharge a capacitor for the system in question, contact the manufacturer for guidance. Many systems with electrical components, motors, or switch gears contain capacitors. Capacitors store electrical energy. In some cases, capacitors hold a charge in order to release energy very rapidly (e.g., similar to the flash of a camera). In other cases,

capacitors are used to remove spikes and surges in order to protect other electrical components. Capacitors must be discharged in the lockout process in order to protect workers from electrical shock.

- b. *Hydraulic and Pneumatic potential energy* Set the valves in the closed position and locking them into place only isolates the lines from more energy entering the system. In most cases, there will still be residual energy left in the lines as pressurized fluid. This residual energy can be removed by bleeding the lines through pressure relief valves. Contact the manufacturer for more specific details, or if no pressure relief valves are available, what other methods are available.
- c. *Mechanical potential energy* Carefully release energy from springs that may still be compressed. If this is not possible, use blocks to hold the parts that may move if the energy is released
- d. *Gravitational potential energy* If feasible, lower the part to a height where falling is impossible. If this is not possible, contact the manufacturer for guidance.
- e. *Chemical energy* If available, bleed lines and/or cap ends to remove chemicals from the system.

6. Apply Lock-out Devices, Locks and Tags

- a. Lock out and tag the energy-isolating device with an assigned, individual lock. A worker will not be protected unless he/she uses his/her own padlock.
- b. If more than one worker is working on the same piece of equipment at the same time, each one should lock out the equipment, by placing a personal lock and tag on the group lockout device when he/she begins work, and should remove those devices when he/she stops working on the machine or equipment.
- c. Locks and tags should clearly show the name of the person who applied the device, the date, and the reason for the lockout. This identifies who is servicing the machinery or equipment. In a multiple lockout/tagout situation, it will also identify any worker(s) who may not have finished working.
- d. Locks and tags must be durable enough to withstand the environment in which they are to be used. Information on the locks and tags should remain legible.
- e. Locks must be substantial enough to prevent removal without the use of excessive force. Tags must be substantial enough to prevent accidental or inadvertent removal.
- f. Both locks and tags are to be standardized by colour, shape, or size. Tags should be easily recognized and provide appropriate information about the lockout.
- g. For some equipment it may be necessary to construct attachments to which locks can be applied. An example is a common hasp to cover an operating button. Tags must be attached to the energy isolating device(s) and to the normal operating control in such a manner as to prevent operation during the lockout
- 7. Verification of Total De-energization of All Sources Verification must ensure energy has been isolated without creating other hazards. This may involve engaging or activating

system controls, visual inspection and/or testing of equipment, in accordance with LOTO procedures.

Verification can take place in several ways:

- a. The machine, equipment, or process controls (push buttons, switches, etc.) are engaged or activated and the result is observed. No result means isolation is verified. Return controls to safe position (off).
- b. Visual inspection of:
 - i. Electrical connections to ensure they are open.
 - ii. Suspended parts are lowered to a resting position or blocked to prevent movement.
 - iii. Other devices that restrain machine or process movement.
 - iv. Valve positioning for double block and bleed (for pipes or ducts) closing two valves of a section of a line, and then bleeding (or venting) the section of the line between the two closed valves.
 - v. Presence of solid plate used to absolutely close a line called line blanking (for pipes or ducts).
 - vi. Any other acceptable method of energy isolation.
- c. Testing of the equipment:
 - i. Test circuitry (should be done by a certified electrician) however, equipment with capacitors needs to be cycled until all energy is drained.
 - ii. Check pressure gauges to ensure hydraulic and pneumatic potential energy has been removed.
 - iii. Check temperature gauges to ensure thermal energy has been discharged

Lockout Interruption – If a system is locked/tagged and there is a need for testing or positioning of the equipment/process, the following steps should be followed:

- Clear the equipment/process of tools and materials.
- Ensure workers are a safe distance from any potential hazard.
- Remove locks/tags according to established procedure.
- Proceed with test.
- De-energize all systems and re-lock/re-tag the controls before resuming work
- 8. Perform Maintenance or Service Activity Complete the activity that required the LOTO procedure.
- **9.** Remove Lockout/Tag out devices To remove locks and tags from a system that is now ready to be put back into service, the following general procedure can be used:
 - a. Inspect the work area to ensure all tools and items have been removed.
 - b. Confirm that all employees and persons are safely located away from hazardous areas.
 - c. Verify that controls are in a neutral position.
 - d. Remove devices and re-energize machine.
 - e. Notify affected employees that servicing is completed

APPENDIX B – Sample LOTO Procedure



APPENDIX C – Emergency Lock Removal Form

APPENDIX D – Sample Work on Energized Equipment Form

	le (guards on or off) or taking readings or measurements orgized components. Machine must be locked out prior to	
commencing work. Working On: Coming into contact with energy		
Date: Time:		
Machine Name & Location:		
Description of work:		
Reason why machine cannot be locked out:		
In order to use this form, the following items must		
 You must have previous experience work You must be familiar with all the energy s 		
3. You must have a way to protect yourself		
4. You must be trained on the City of Winnig		
	afety watcher must be present and shall never come in	
contact with the machine during the task		
Identify the following hazards that apply to th	is equipment and explain how to control them:	
Identify the following hazards that apply to th 1. Electrical:		
Identify the following hazards that apply to th 1. Electrical: 2. Unexpected Start:	· · · · ·	
Identify the following hazards that apply to th 1. Electrical: 2. Unexpected Start: 3. Moving Parts:		
Identify the following hazards that apply to th 1. Electrical: 2. Unexpected Start: 3. Moving Parts: 4. Sharp Objects:		
Identify the following hazards that apply to th 1. Electrical: 2. Unexpected Start: 3. Moving Parts: 4. Sharp Objects: 5. Temperature:		
Identify the following hazards that apply to th 1. Electrical: 2. Unexpected Start: 3. Moving Parts: 4. Sharp Objects: 5. Temperature:		
Identify the following hazards that apply to th 1. Electrical: 2. Unexpected Start: 3. Moving Parts: 4. Sharp Objects: 5. Temperature: 6. Stored/Residual Energy:		
Identify the following hazards that apply to th 1. Electrical: 2. Unexpected Start: 3. Moving Parts: 4. Sharp Objects: 5. Temperature: 6. Stored/Residual Energy: Name of Person Performing Work:		
Identify the following hazards that apply to th 1. Electrical: 2. Unexpected Start: 3. Moving Parts: 4. Sharp Objects: 5. Temperature: 6. Stored/Residual Energy: Name of Person Performing Work:	Signature:	
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