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## 1.0 Safety Guidelines

1.1 Alcohol and Drugs/Impairment

| Outline | Reference |
|---|---|
| Certain factors may affect a person's ability to be to undertake their work safely such as physical and mental impairment caused by fatigue, stress, anxiety, legal and illegal drug use.<br><br>The Contractor must ensure employees are physically, mentally and emotionally fit to undertake their duties without impact to their health and safety or the health and safety of others in the workplace.<br><br>Employees must not be impaired from the use of legal (i.e. alcohol) or illegal drugs while in the course of their employment (inc. travelling) and while working on SD43 property. | Part 4<br><br>Reg 4.19 |
| Key Elements of Expectations | |
| The Contractor has supervisors that are provided training in fitness for work and recognizing signs and symptoms of impairment.<br><br>A Fitness for Work procedure is developed, maintained and reviewed regularly. The procedure shall include but is not limited to:<br><br>• Stress and anxiety<br>• Fatigue<br>• Alcohol<br>• Illicit drugs<br>• Prescription medication (i.e. reporting requirements)<br>• Education and Training<br>• Peer supporters<br>• Confidential employee counseling service<br>• Events management (i.e. celebrations, meetings and other events that serve alcohol, including transportation arrangements); and<br>• Discipline action policy and procedures. | |

## 1.2 Asbestos Management

| Outline | Reference |
|---|---|
| The Regulations outline detailed requirements where a worker is or may be exposed to potentially hazardous levels of asbestos fiber.<br><br>SD43 has a responsibility to inform the Contractor of known existing asbestos in the workplace. Where a previously undetermined asbestos source is encountered work must stop and the Contractor must cease activity and inform the owner (SD43).<br><br>The Contractor has a responsibility to ensure workers are not exposed to asbestos and to develop an Exposure Control Plan in accordance with Regulation 6.3, if there is potential for exposure. | Reg Part 6<br><br>Reg 6.3 to 6.32<br><br>Reg 6.3 |
| Key Elements of Expectations | |
| The Contractor has developed Procedures and an Asbestos Exposure Control Plan as required by Regulation 5.54, 6.3, and 6.6.<br><br>Employees have been trained in the hazards and controls for working with asbestos.<br><br>Asbestos-containing material that is to be removed or disturbed must be performed using methods that are acceptable to the Workers Compensation Board of British Columbia.<br><br>Appropriate ventilation is provided for employees.<br><br>Strategies to prevent the spread of asbestos dust and debris to other work areas are maintained.<br><br>Containment and a decontamination facility are maintained for high-risk work.<br><br>The Contractor must ensure that an inventory of all asbestos-containing materials present in the workplace is prepared and kept current.<br><br>The Contractor must ensure that signs, labels or when these are not practicable, other effective means identify all asbestos containing materials present in the specific workplace. | 5.54 |

## 1.3 Automotive Lifts

| Outline | Reference |
|---|---|
| The regulations outline general requirements and standards for automotive lifts.<br><br>Additional specific requirements regarding Automotive lifts are addressed in Section 19 of the SD43 Employee Manual. They apply to all personnel on SD 43 property. | Reg. 12.74 to 12.79 & Part 4 |
| Key Elements of Expectations | |
| The Contractor must coordinate activity with SD 43 when that activity will affect the use of an automotive lift.<br><br>The Contractor must ensure workers are made aware that they require the necessary training to operate an automotive lift as specified in the SD 43 Employee Manual.<br><br>Automotive lifts are not to be used for any activity other than its intended use. | |

## 1.4 Barricades and Barriers

| Outline | Reference |
|---|---|
| All barricades and barriers shall conform to all safety practices required by Regulations. Barriers on SD 43 property must be secured and visible 7 days a week 24 hours a day. This will include weekends and holidays. | Workers Compensation Act 2004 (Part 3, Division 3, Section 115) |
| Key Elements of Expectations | |
| All walkways in close proximity to job sites shall be built with overhead protection where overhead work is being performed.<br><br>All work areas to receive renovations shall be completely enclosed off with solid plywood partitioning. Partitioning shall be insulated to reduce sound transmission and sealed above and below suspended ceilings to prevent the spreading of dust to smoke detectors, to staff and other areas.<br><br>In areas of new construction, staff, children and parents are to be fully protected from construction activities by enclosing the site with appropriate fencing or plywood hoarding.<br><br>Exit and access routes are to be kept clear of obstructions. Walkways are to be level and free of tripping hazards. Where ramps are required, they are to be painted yellow.<br><br>Warning signs and adequate lighting shall be provided and maintained for the protection of the public. | |

## 1.5 Chemicals – WHMIS

| Outline | Reference |
|---|---|
| Many chemicals and biological substances are used in the workplace that may have an adverse health effect on the user if there is inadequate supervision, instruction, information and training available for the employee.<br><br>The Regulations prescribe a system to ensure precautions are taken to ensure the health and safety of employees. The system is named the Workplace Hazardous Materials Information System (WHMIS) which is designed to ensure all employees are able to exercise their "right to know" relating to controlled products.<br><br>SD43 requires that the Contractor checks:<br><br>• Substances transported to the workplace that are dangerous goods comply with the Transportation of Dangerous Goods Act and Regulations.<br>• Work activities are in compliance with the Regulations, Chemical and Biological Substances and Workplace Hazardous Materials Information System (WHMIS).<br>• Substances used in the workplace are clearly identified by manufacturers, workplace or supplier labels, Material Safety Data Sheets (MSDS) (< 3 yrs old), placards, signs, or tags<br>• WHMIS and emergency clean up procedures are developed, maintained and reviewed<br>• Supervisors are provided adequate training in WHMIS and emergency spills control;<br>• Employees are provided WHMIS training prior to working with controlled products. A certified WHMIS training provider must conduct the training.<br><br>Information is provided to employees via:<br><br>• Inventories providing a listing of all WHMIS controlled products<br>• Material Safety Data Sheets on chemicals legislated under WHMIS<br>• Labeling of containers<br>• Training of employees. | Reg Part 5<br><br>Reg 5.1 – 5.102 |
| Key Elements of Expectations | |
| • Material Safety Data Sheets (MSDS) are readily available for each hazardous substance used at the workplace.<br>• Employees have had an appropriate level of training and instruction in the WHMIS Program.<br>• All original containers are labeled in accordance with WHMIS requirements.<br>• If decanted into another container and not immediately used, the new container has a workplace label to identify the contents and state risk and safety phrases (e.g. Corrosive. Avoid contact with skin and eyes).<br>• Substances are stored in accordance with the applicable MSDS. | |

## 1.6 Concrete

| Outline | Reference |
|---|---|
| Formwork and false work:<br>SD43 requires that the Contractor have a set of plans and specifications meeting the requirements of *CSA Standard S269.1-1975, False work for Construction Purposes* and *CSA Standard CAN/CSA-S269.3-M92, Concrete Formwork.* | Regulation Part 20<br>Reg 20.17<br>CSA S269.1<br>CAN/CSA – S269.3-M92 |
| Key Elements of Expectations | |
| The Contractor is required to ensure professionally engineered erection drawings and supplementary instructions for concrete formwork including suspended slabs and tilt-up panels.<br>A professional engineer must certify False work reshoring and bracing and provide plans to be available during erection, explaining the use and removal of the concrete formwork, false work and reshoring this includes fly-form tables.<br>The Contractor will ensure inspections and written reports are conducted and completed by the engineer or their designate with regard to tilt-up panels as required by Regulation.<br>Where the formwork is being used as a work platform the area must be provided with appropriate edge protection and access/egress. Edge protection must be provided where there is a risk of falling 2 or more metres from the formwork.<br>Formwork is not thrown or dropped from a building during stripping and nails/sharp fixings must be removed before stacking.<br>The Contractor checks for loose fittings prior to the concrete pour.<br>The Contractor will ensure Traffic Control Persons and Traffic Control Management as per municipal and or provincial requirements in relation to their activities Part 18 Regulations all.<br>The Contractor checks that the concrete pump complies with the Regulations 20.27 – 20.54.<br>If concrete requires pre-stressing or post tensioning the Contractor complies with Regulation 20.60 – 20.71.<br>If tilt up building construction is required the Contractor complies with Regulation 20.55 – 20.59 | Part 18 Regulations |

## 1.7 Confined Space Entry

| Outline | Reference |
|---|---|
| Confined space except as otherwise determined by the WCB, means an area, other than an underground working, that<br>(a) is enclosed or partially enclosed,<br>(b) is not designed or intended for continuous human occupancy,<br>(c) has limited or restricted means for entry or exit that may complicate the provision of first aid, evacuation, rescue or other emergency response service, and<br>(d) is large enough and so configured that a worker could enter to perform assigned work.<br>Most fatalities in Confined spaces occur because risks were not adequately assessed. Many fatalities also occur from persons attempting a poorly planned rescue.<br>Pre-planning is essential and there must be a close liaison between the contractors confined space entry designates.<br>• The confined space administrator and or the qualified confined space supervisor.<br>• The contractors designate who will be supervising the work and all participants of the confined space entry procedure. | Reg Part 9 |
| Key Elements of Expectations | |
| The Contractor has a Confined Space Entry Program before a worker is required or permitted to enter a confined space.<br>All risks have been assessed (relating to the asset, the work, and rescues).<br>A confined space entry permit is completed (with a copy on site).<br>Isolations have been completed, where applicable.<br>Atmospheric monitoring is conducted where there is potential for dangerous atmosphere or an oxygen deficient atmosphere is present or may occur.<br>Only non-sparking tools may be used in a confined space where flammable or explosive gases, vapours or liquids are present.<br>Ventilation is adequate (natural or forced).<br>Stand by person(s) are in place and are monitoring entrants.<br>An appropriate rescue plan is in place.<br>Outside activities are controlled (e.g. exhausts are not near ventilation intakes). | Reg 9.5 |

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| Unauthorized persons are denied access (with barricades and signs where necessary).<br><br>All personnel involved have had appropriate training.<br><br>Fire extinguishers are available.<br><br>Welding screens are used where necessary.<br><br>**Welding in Confined Spaces**<br><br>Provision must be made to ensure an adequate supply of breathing air and removal of the fumes away from persons in the Confined Space.<br><br>There should be a provision close by for the Standby Person to cut the electrical supply.<br><br>Gas cylinders must not be taken into a Confined Space with the exception of supplied breathing air cylinders, and fire extinguishers.<br><br>All gas cylinders must be appropriately stored and secured as per Regulation<br><br>Other (general) precautions necessary for Confined Space Entry must be in place (see Confined Space Entry).<br><br>Welding screens are used where necessary. | |

## 1.8 Cranes and Other Plant for Lifting

| Outline | Reference |
|---|---|
| The operational requirements for cranes are contained in Part 14 of the Regulations. The section sets down a number of minimum operational requirements and also specifies certain CSA and ANSI Standards as compliance documents. | Reg 14<br>CSA Standards<br>ANSI Standards |
| Key Elements of Expectations | |
| Maintenance and inspection records and the Operators Manual are readily available and current as required.<br>Operators are trained and approved to operate the hoist lift or crane.<br>All rigging inspections and required pre-test lifts are performed as required.<br>Cranes operate or are set-up on firm ground or surfaces sufficient to support the crane and its load.<br>Out riggers are used in accordance with the crane load chart requirements. Lifting arms do not extend beyond the limit required.<br>Cranes (especially jib and tower cranes) are not operated in excessive winds or when there is a likelihood of lightning.<br>Cranes have a load chart. Excavators and other earth moving equipment used to lift a load also have either a load chart or WLL (working load limit) marked on the boom.<br>Earth moving equipment used to lift suspended loads use a dedicated lifting point.<br>Equipment is not set-up or used close to an excavation unless particular care is taken to prevent the excavation from collapse.<br>Controls are not left unattended, even momentarily, unless all loads have been removed from the hook.<br>Certified Riggers are used for slinging or signaling where required.<br>Multiple crane lifts are avoided as much as possible. If the case arose where it is unavoidable, Regulation 14.42 is to be followed. | 14.34 |

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| **Safety of Personnel** | Reg 14.42 |
| Site personnel and vehicles not directly involved in the operation of the crane are excluded from lifting areas by use of signs, bunting or other relevant methods. | |
| Loads are not suspended over workers or any other persons. A properly located easily identifiable trained Safety Monitor must be present when the public are in the general area and a lift will take place. This includes lunch times, recesses, and pick-up or drop-off times. | |
| Riding on loads is prohibited. Passengers on the plant may only use dedicated seats. | |
| Persons may only be suspended by a crane/hoist by the use of a WCB approved workbox. Persons in a workbox must wear a safety harness and attach to the workbox and written instructions must be given to both the person in the workbox and the crane driver. | |
| The plant and its load are operated such that it will not breach the 'Danger Zone' for power lines. | |
| Loads that may become unstable are appropriately restrained. | |
| Taglines are used whenever there is a need to control a load by hand. | Reg 19.24 |

1.9 Demolition Work

| Outline | Reference |
|---|---|
| The inherent hazards in demolition work vary greatly from job to job and many other sections of this Handbook are relevant to those hazards. | Reg Part 20 |
| Key Elements of Expectations | |
| **Demolition work**<br>The Contractor has developed a plan addressing:<br>• Structural integrity<br>• Hazardous materials<br>• Disconnecting services<br>• Glass removal<br>• Protection from falling materials<br>• Throwing materials<br>• Stabilising walls<br>• Dismantling buildings<br>• Housekeeping<br>• Stairways<br>• Garbage and all waste material<br>**For all demolition sites –**<br>• Trained persons are used to erect, modify or dismantle a scaffold.<br>• Access is restricted to authorized persons, with fencing, bunting or hoarding as needed<br>• Skips or other facilities are provided for debris and housekeeping standards are maintained<br>• Scaffold is heavy duty and complies with the Regulations.<br>• Safety helmets, footwear, glasses and other PPE are worn as needed.<br>• If asbestos is to be removed or interfered with, appropriate precautions are taken, and disposal is to an approved site.<br>• If the demolition will disturb thermal or acoustic lagging or insulation, which contains asbestos, work, ceases until a Qualified Contractor has removed it.<br>• Demolition workers are trained to recognise demolition hazards.<br>• Noise is minimised as much as practicable (see Noise).<br>• No debris is falling outside the restricted area. | Reg 20.111 – 20.121 |

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| **Renovation work**<br>The Regulations make specific reference to renovation when dismantling building and working around asbestos containing materials.<br><br>**Dismantling buildings**<br>During the dismantling or renovation of a building or structure, materials of a size or weight which may endanger workers must not be loosened or allowed to fall, unless procedures are used that will adequately protect workers.<br><br>**Demolition and/or renovation of building containing ACM**<br>All procedures should be designed to eliminate or minimize the release of asbestos fiber by selecting appropriate work procedures, practices, and methods and supervising workers. All asbestos-containing wastes generated are to be placed in impervious containers and adequately labeled as ACM waste material. | Reg 20.119<br><br>Guideline 6.8 Procedures for abatement of asbestos-containing material (ACM) during house and building demolition/renovation. |

## 1.10 Dust Control

| Outline | Reference |
|---|---|
| The Contractor must control and contain dust created from work activities. This will include an Exposure Control Plan when required by Regulation. | Part 4<br>Part 6 |
| Key Elements of Expectations | |
| All activities such as concrete grinding, drywall sanding, sweeping and similar that create dust are to be controlled and contained.<br>All surfaces, including pipes, ducts and cable trays are to be wiped clean upon completion of the work.<br>The method of proposed dust containment is to be discussed and reviewed with SD43 prior to the commencement of work.<br>Where exterior work is to be conducted, building air intakes are to be sealed and protected from construction dust. This includes but is not limited to; windows, doors, vents, and louvers. | |

## 1.11 Electrical Safety

| Outline | Reference |
|---|---|
| This section deals with electrical wiring, portable power tools and power supply for temporary work.<br>Standards relating to the safety of electrical installations at a workplace are defined in the Regulations Part 19.<br>Regulations relating to working on low and high voltage electrical equipment and on de-energized high voltage power systems are also outlined. | Reg Part 19 |
| Key Elements of Expectations | |
| **General**<br>Employees are properly trained in relation to the electrical equipment being used (i.e. electrical cords, plugs, temporary distribution, electrical high voltage and electrical lock out).<br>Employees are aware of the procedures on how to report electrical faults with electrical equipment.<br>Incidents involving electricity are reported to the supervisor and first aid attendant.<br>Only qualified electrical workers alter electrical equipment.<br>Equipment or machinery (plant) that has been identified as damaged, worn or otherwise unserviceable is removed from the workplace where necessary, and identified by use of Out-of-Service tags. The requirement to tag unserviceable or damaged plant is mandatory for electrical plant.<br>Portable electrical power tools<br>All electrical hand tools and electrical leads are inspected and removed from service if damaged or faulty.<br>Ground Fault Circuit Interrupters (GFC's) are installed at the power source for tools, which are not equipped with a ground plug.<br>Although not mandatory, 3 monthly testing and tagging of portable electrical equipment is recommended.<br>Flexible electrical cords or cables are located in positions where they are not subject to damage.<br>Flexible cords and cables are supported off the floor or ground where they are located more than 10 metres from an appliance, cross passage or access ways or are not in view of the person using the appliance to which they are connected.<br>Large electrical tools have an emergency stop button.<br>Portable electrical tools are not used in wet conditions or when the operator is in contact with water. | |

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| Damaged power tools (e.g. broken protective cowling) are removed from service and tagged with an Out-of-Service tag.<br>Any machine or piece of equipment has an inspection and maintenance record.<br><br>**Power supply**<br>Each power supply, at a construction site must be provided with an isolating switch or circuit breaker.<br><br>**Switchboards/Distribution Boards**<br>A main switchboard at a construction site is readily accessible and protected against damage.<br>On multi-level buildings distribution boards shall be positioned in a manner that eliminates the need for flexible or cables to be run between levels.<br><br>**Distribution wires**<br>All aerial electrical conductors on a construction site are insulated.<br>Where electrical overhead wiring crosses roads used by cranes, heavy or high vehicles, the wires are protected by a flagged catenary places 6 metres either side of the crossing. The catenary shall be located at least 0.6 metres below the minimum height of the wires.<br><br>**Amenities**<br>Pools of water are removed and leads are elevated and not lying on the ground.<br>Electrical sockets inside a hut only supply equipment and lighting in the hut.<br><br>**Plant and Scaffolding Safety**<br>No item of plant, mobile equipment, load or person enters the 'Danger Zone' of an overhead power line.<br>Any power lines in close proximity to scaffolding have been insulated or isolated by the electrical authority.<br>Aerial cables are not to be fixed or attached to scaffold. | Reg 19.24 |

**Personal Safety**

No tool or equipment is to be left unattended when operational**.**

Any tool that has a safety device removed or that is defective must be removed from service.

Persons using electrical leads, handheld equipment, and portable equipment (intended to be moved during operation) must be protected by a Ground Fault Circuit Interrupter.

Although not mandatory, 3 monthly testing and tagging of portable or handheld mains voltage electrical equipment is good practice.

Danger Tags are not used when personnel are not at risk (where personnel are not at risk 'Out of Service' tags may be used where plant is damaged or withdrawn from service).

Any damaged plant/equipment, which is not to be used, has an 'Out of Service' tag attached (mandatory in the case of electrical plant).

If the unexpected energization or start-up of machinery or equipment or the unexpected release of an energy source could cause injury, the energy source must be isolated and effectively controlled.

Regulation 10.1 – 10.12 must be followed.

Any persons reporting electrical shock attend the on site first aid post and are transported to hospital for a routine ECG test.

## 1.12 Electrical Isolation

| Outline | Reference |
|---|---|
| **This section is to be read in conjunction with 'Electrical Safety'.**<br>The use of isolation systems that incorporate information tags and locks are an essential element of a safe system of work. Wherever, it is necessary to access plant for the purpose of maintenance, upgrade, cleaning or repair the plant must be, where practicable, isolated using isolation devices and locked using lockout devices.<br>Tagging and isolation practices vary slightly between Contractors. SD43's own procedures must be followed for tagging and isolation. Confirmation with SD 43 Maintenance is required before implementation of any procedure that affects or alters an SD 43 facility system or process. | Reg Part 10 |
| Key Elements of Expectations | |
| There is procedure in place for isolation of equipment and lockout for stored energy sources that could pose a hazard. Under the procedure –<br>A written De-energization and or lockout system must be provided and implemented that includes an emergency contact phone number.<br>a) Isolated equipment is danger tagged whenever personnel would be at risk if equipment were operated;<br>b) Lock out is used where required; and<br>c) Isolations effectively protect all personnel.<br>Where there are multiple contractors/subcontractors on site, all personnel operate under one isolation and tagging procedure.<br>Site personnel understand the isolation and tagging procedures.<br>The procedures have been effectively implemented (i.e. site practices are consistent with the procedure).<br>Tags and locks are removed when no longer needed. | |

## 1.13 Emergency Procedures

| Outline | Reference |
|---|---|
| The need for emergency procedures and their related scope will vary dependant upon the nature, size and location of the workplace. Procedures should take into account any special needs and hazards that directly relate to the work environment.<br><br>The Regulations require the Contractor to conduct a risk assessment in any workplace in which a need to rescue or evacuate workers may arise.<br><br>The emergency procedures of the Contractor must be coordinated with the existing emergency procedures at the SD 43 worker or public occupied location. This must include notification of drills and when conducting emergency first aid, earthquake, fire, or rescue procedures.<br><br>Emergency means of escape must be provided from any work area in which the malfunctioning of equipment or a work process could create an immediate danger to workers and the regular means of exit could become dangerous or unusable.<br><br>Emergency exit routes must be designed and marked to provide quick and unimpeded exit.<br><br>At least once each year emergency drills must be held to ensure awareness and effectiveness of emergency exit routes and rescue procedures. A record of the drills must be kept. | Reg Part 4<br><br>Reg 4.13<br><br>Reg 4.14 |
| Key Elements of Expectations | |
| Appropriate procedures have been established for likely site emergencies.<br><br>Emergency procedures reference (where applicable) –<br><br>• Emergency equipment<br><br>• Communication systems<br><br>• Responsibilities<br><br>• Muster points<br><br>• Emergency contact numbers/frequencies<br><br>Emergency procedures do not have unrealistic expectations of the capabilities or response times of emergency services agencies (especially in remote areas).<br><br>Emergency procedures must be understood by site personnel, and displayed where practicable.<br><br>Emergency exits are adequate and kept clear.<br><br>Any special rescue equipment at the site is in good condition and adequately stored in a dry, secure place away from contact with chemicals and direct sunlight. | |

## 1.14 Environmental Conditions

| Outline | Reference |
|---|---|
| Work that affects the environmental conditions and air quality (i.e. heating, cooling or humidity) must be minimized. Or where an oxygen deficient atmosphere is present or may occur. | Reg 4.7<br>Reg 22.30 |
| Key Elements of Expectations | |
| The Contractor has a plan to control the impact of work on environmental conditions and air quality. Issues include be are not limited to:<br>• atmospheric testing<br>• heating<br>• cooling<br>• humidity<br>• waste oil, paints etc<br>• rubbish disposal<br>• ground contamination<br>• clearing, tree removal. | |

## 1.15 Excavation

| Outline | Reference |
|---|---|
| The single most important safety consideration in carrying out excavation work is the prevention of trench collapse. The Contractor must ensure that a risk assessment relating to any excavation and earthworks is conducted and to do what is necessary to prevent a collapse.<br><br>Other significant risks include rescue, **disrupting underground and overhead services**, personnel working around mobile plant, public safety and traffic. | Part 20 |
| Key Elements of Expectations | |
| The Contractor has identified all underground services from plans and site examinations and is taking appropriate precautions.<br><br>When required a geo-technical entry permit must be issued in accordance with Regulation prior to any entry. A competent person has made an assessment of the stability of trenches or earth works and the trench boxes or shoring are in use where necessary. Written instructions for assembly and removal of shoring and whalers must be present at the work location.<br><br>Where an oxygen deficient atmosphere is present or may occur atmospheric testing is taking place.<br><br>A rescue plan is in place and a drill has been conducted during the last year.<br><br>Excavated material should not be placed closer than 0.5 m from the edge of a trench.<br><br>A worker is not in an excavation 1.2 m or deeper without supervision and means of initiating emergency procedures.<br><br>De-watering is being used where necessary.<br><br>Public safety barriers and signage are in place.<br><br>Where the public are at risk of falling 1.2m or more; Modu-loc fencing or hoarding must fully encompass the excavation. All excavations must be secured from unauthorized entry whenever left unattended. | Reg 20.78 – 20.95 |

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| For personnel where an excavation is 1.2 m or deeper<br>• Geo-technical permit is current, reviewed, and understood.<br>• Supervision is present<br>• Handrails are in place, or<br>• Fall protection system is used.<br><br>Workers are provided with a secured appropriate ladder where necessary, for trench access and egress.<br><br>Workers should exit a trench or stand well clear during the removal of trench support systems.<br><br>Traffic management systems effectively divert traffic, pedestrians, cyclists, etc.<br><br>Excavators and other earth moving or mobile equipment will not breach the 'danger zones' of adjacent power lines. Or breach the limits of approach of the excavation. | Reg 19.24 |

## 1.16 Explosive Power Tools (EPT's) Nail Guns and Fasteners Including Pneumatic Types

| Outline | Reference |
|---|---|
| Power actuated (PA) hand held fastening tools is the term used to describe what are commonly known as explosive power tools.<br><br>A power actuated fastening system, consisting of the tool, power loads and fasteners must meet the requirements of *ANSI Standard A10.3-1995, American National Standard for Construction and Demolition Operations -- Safety Requirements for Power-Actuated Fastening Systems.*<br><br>The tool uses an explosive charge to drive a fastener into substances such as walls and concrete.<br><br>Nail guns are a similar device and use compressed air or electricity to drive steel nails or pins commonly into wood or similar surfaces.<br><br>EPT user competency<br><br>The training and competency requirements for person using EPT's are outlined in Reg 12.56 where only a qualified person may handle or use a power actuated tool or power loads. | Reg 12.51<br><br>ANS1 A10.3-1995<br><br>Reg 12.56 |
| Key Elements of Expectations | |
| EPT's are only loaded in the immediate area of use.<br><br>EPT's are not operated in areas congested with people.<br><br>**The operator or persons (i.e. labourers/helpers) in the immediate vicinity of the operation of an EPT wears suitable eye and hearing protection.**<br><br>Signs (Caution – Explosive Power Tool in Use) are displayed in the area of use.<br><br>Signs and/or barricades are placed behind the material to warn personnel.<br><br>An EPT are not used in an explosive or flammable atmosphere.<br><br>An EPT are only loaded when it is being prepared for immediate use, and it is unloaded at once if work is interrupted after loading.<br><br>An EPT is not pointed at any person.<br><br>If an EPT misfires, the operator holds the tool firmly against the work surface for at least 5 seconds, then follow the manufacturer's instructions for such occurrences, until the cartridge has been ejected, keep the tool pointed in a direction, which will not cause injury to any person. | |

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| Servicing EPT's<br>The operator must have immediately available when using or servicing a power actuated tool<br>(a) a copy of the manufacturer's operating instructions for the tool,<br>(b) a copy of the power load and fastener charts for the tool, and<br>(c) any accessories or tools needed for use or field servicing of the tool, including personal protective equipment. | Reg 12.56 (2) |
| **Nail Guns**<br>Warning signs (Warning – Nail Gun in Use – Keep Clear) are displayed during use.<br>Operators and personnel in the area are wearing suitable eye and ear protection. | |
| Tools- Pneumatic Types<br>Must be used as per manufacturer's instructions and as per Regulation. | Part 12 |

## 1.17 Exposure to Extreme Heat and Cold

| Outline | Reference |
|---|---|
| Regulations require an employer to ensure employees are protected from extremes of heat and cold. Weather conditions in Canada in summer and winter are at times extreme.<br>The Contractor is to ensure heat/cold stress exposure control plan exists, and includes:<br>• Heat/cold stress factors<br>• Provision of water<br>• Heated shelters and shade<br>• Removal from and treatment of heat/cold exposure<br>• Clothing and PPE<br><br>Before working in extreme cold or heat, employees should be instructed in health and safety procedures.<br>Training should cover:<br>• proper clothing and equipment<br>• safe work practices<br>• guidelines for eating and drinking<br>• risk factors that increase the health effects of cold/heat exposure<br>• how to recognize signs and symptoms of heat stress and heat stroke<br>• appropriate first aid treatment, including rewarming/cooling procedures. | Reg Part 7 |
| Key Elements of Expectations | |
| **Heat Stress**<br>Heat stress may occur as the result of a heat wave or exposure to a constant source of heat at the workplace. The six main factors involved are temperature, humidity, and movement of air, radiant temperature, a person's clothing and physical activity.<br>Heat stress can rapidly progress to a condition known as heat stroke. Heat stroke is life threatening and should be treated as a medical emergency. | |

**What to look for – Heat Stress Controls**

Where practicable, shade should be provided to protect employees from hot sun (especially during the summer months).

Employees are protected from extremes of heat (e.g. through rotation, regular breaks, or scheduling the activity for an appropriate time of day).

Adequate cool and clean drinking water is available.

Sunscreen of at least SPF 15+ and clothing designed to protect employees from the sun should be made available if necessary.

Workplaces in a building have, as a minimum, good natural ventilation.

**Cold Stress**

Cold stress or hypothermia can affect construction workers who are not protected against cold. The cold may result naturally from weather conditions or be created artificially, as in refrigerated environments.

Cold is a physical hazard in many construction workplaces. When the body is unable to warm itself, serious cold-related illnesses and injuries may occur, leading to permanent tissue damage and even death.

**What to look for – Cold Stress Controls**

For work performed continuously in the cold, rest and warm-up breaks are scheduled.

Heated shelters such as trailers are available nearby.

Employees are encouraged to use these shelters at regular intervals depending on wind-chill factor.

Employees showing signs of shivering, frostbite, fatigue, drowsiness, irritability, or euphoria should immediately return to the shelter.

Employees entering the shelter should remove their outer layer of clothing and loosen other clothing to let sweat evaporate. In some cases, a change of clothing may be necessary.

1.18 Fall Protection and Ladders

| Outline | Reference |
|---|---|
| **Obligation to use fall protection**<br>All personnel must ensure that a fall protection system is used when work is being done at a place:<br>• from which a fall of 3 m (10 ft) or more may occur, or<br>• where a fall from a height of less than 3 m involves a risk of injury greater than the risk of injury from the impact on a flat surface.<br><br>**Fall protection plan**<br>The employer must have a written fall protection plan for a workplace if work is being done at a location where workers are not protected by permanent guardrails at all times and from which a fall of 3.0 m or more may occur.<br>The fall protection plan must be available at the workplace before work with a risk of falling begins.<br>**Ladders**<br>A manufactured portable ladder must be marked for the grade of material used to construct the ladder and the use for which the ladder is constructed. | Reg Part 11<br>Reg 11.2<br><br>Reg Part 13 |
| Key Elements of Expectations | |
| **Fall prevention**<br>The Contractor has adopted elimination and engineering controls for fall prevention in preference or in conjunction with, personal protective equipment and administrative (procedural) controls wherever practicable. Scaffolding, edge protection, the use of work platforms, ladders and workboxes are examples of engineering controls for fall prevention.<br>No person should ever be ‘free climbing’ or ‘free walking’ during steel erection.<br>Persons using fall arrest systems are using a full harness.<br>Scaffolds are provided with appropriate access and edge protection (see Scaffolding).<br>All holes in floors or landings (other than a lift well, stair well or vehicle inspection pit) are covered secured and labeled.<br>Untrained persons do not use personal fall protection systems.<br>Personal fall protection equipment is in good working condition as per CSA Standards and inspected prior to use. | |

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| **Ladders**<br>Ladders may provide a suitable means of providing safe access/egress. However, ladders (fixed or portable) should not be used as a work platform where a safer method of carrying out the work is practicable. | |
| **Position and stability**<br>A ladder must:<br>• be placed on a firm and level base,<br>• be positioned so that the horizontal distance from the base to vertical plane of support is approximately ¼ of the ladder length,<br>• have sufficient length to project approximately 1 m (3 ft) above the upper landing to which it provides access, and<br>• be effectively secured to ensure stability during use. | Reg 13.5 |
| **Use restrictions**<br>If work cannot be done from a ladder without hazard to a worker, a work platform must be provided. | Reg 13.6 |
| A worker must not carry up or down a ladder, heavy or bulky objects or any other objects, which may make ascent or descent unsafe. | |
| Portable ladders are designed and manufactured in accordance with the Regulations.<br>Persons using ladders have three-point contact with the ladder (and don't carry any items that will compromise three point contact).<br>Fiberglass or non-conductive ladders must be used for work where electrical hazard is a possibility.<br>For long term work, or where practicable, alternatives such as scaffold or Elevated Work Platforms are used in preference to working from a ladder. | Reg 13.4 |

## 1.19 Fire Prevention

| Outline | Reference |
|---|---|
| Every workplace must have an appropriate level of fire prevention. The complexity and formality of the workplace fire prevention system will depend on the nature of work and the work environment.<br>Special precautions will be necessary around flammable goods or in workplaces that have the possibility of explosive atmospheres.<br>Recently welded or flame cut work must be marked "HOT" or effectively guarded to prevent contact by an unaware worker, or member of the public. Appropriate certified fire extinguishers must be present at these locations and workers that are trained to use them. | Reg Part 4<br>Part 12<br>Standards<br>Reg's<br>Guidelines |
| Key Elements of Expectations | |
| All activities are conducted in a manner that ensures that existing building systems are protected and maintained.<br>Co-operate and coordinate with SD 43 monitoring systems.<br>The fire emergency procedures of the Contractor must be coordinated with the existing fire emergency procedures at the SD 43 location. This must include notification of drills and when conducting fire emergency procedures.<br>There is an appropriate number and type of fire extinguishers strategically located around the site (including flammable goods storage areas).<br>False alarms caused by the Contractor resulting in false alarm charges issued by the Fire & Rescue Department will be the Contractors responsibility.<br>Fire extinguishers and fire hoses have been serviced and service tags marked accordingly (at least annually).<br>Fire extinguishers, fire hoses and hydrants are easily identifiable and given clear access. If work blocks existing hydrants – temporary systems and labeling need to be put in place.<br>Flammable goods storage areas are identified with appropriate warning signs. | Reg 4.16 |

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| Hot work (e.g. welding, cutting and grinding) is not being carried out in close proximity to flammable liquids or combustible goods.<br><br>Combustible materials are removed from the area.<br><br>Site emergency procedures are appropriate for the level of fire risk and an emergency assembly area has been established.<br><br>All employees have been given adequate instruction in the fire prevention and emergency evacuation procedures applicable to their workplace.<br><br>Some employees are assigned to firefighting duties and have been given adequate training, by a qualified instructor, in fire suppression methods and fire prevention.<br><br>If the Contractor stores controlled products covered by WHMIS (explosives, pesticides, radioactive material, consumer products or hazardous wastes) in quantities, which may endanger firefighters or others, the Contractor has notified the local fire department and SD 43 Maintenance Manager of the nature and location of the hazardous materials or substances and methods to be used in their safe handling (see pages 16 &17).<br><br>The Contractor will provide access to all required MSDS documents to the workers, the designated first aid attendant, and any SD 43 personnel upon request. | Reg 4.17 |

## 1.20 First Aid, Medical Emergencies and Isolated Employees

| Outline | Reference |
|---|---|
| First aid will be administered for the purpose of preserving life and minimizing the consequences of injury until advanced medical treatment is obtained and/or where treatment of minor injuries is required.<br><br>The Regulations state that the employer must provide for each workplace such equipment, supplies, facilities, first aid attendants and services as are adequate and appropriate for promptly rendering first aid to workers if they suffer an injury at work, and transporting injured workers to medical treatment.<br><br>The Guidelines, Part 3 also provide assistance in determining the level of first aid requirements needed for a workplace.<br><br>Isolated employee(s)<br><br>Where an employee is working isolated from others adequate provisions must be made to ensure:<br>• There is a communication system that the employee can use in an emergency<br>• There is an understood procedure for regular contact to be made.<br><br>The Regulations state that the employer must develop and implement a written procedure for checking the well being of a worker assigned to work alone or in isolation under conditions that present a risk of disabling injury. Particularly if the worker might not be able to secure assistance in the event of injury or other misfortune. | Reg Part 3<br><br>Guidelines Part 3<br><br>Reg 4.21 |
| Key Elements of Expectations | |
| Each work location is provided with first aid equipment, supplies, facilities and first aid attendants that are adequate for employees if they suffer an injury and/or require transportation to medical treatment (at no cost to the employee).<br><br>First aid boxes are readily available at the workplace. If the work is of a generally transient nature, a box should be kept in a site vehicle. | |

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| First aid procedures are developed and communicated to all employees and are visually displayed at the workplace,<br><br>Employees are aware of the first aid facilities, first aid attendants, emergency numbers and method of transportation.<br><br>Employees working alone and/or after hours must have access to first aid facilities.<br><br>Each workplace/site should have a basic medical emergency procedure that is posted (by signage where practicable) in a common area such as an amenities room.<br><br>Special provisions for first aid exist where significant quantities of hazardous substances are handled (e.g. emergency showers, eye wash stations or antidotes). | |

## 1.21 Forklifts (Industrial Trucks)

| Outline | Reference |
|---|---|
| Most serious injuries or fatalities occur during forklift rollovers when the operator either attempts to jump clear of the machine or is ejected from the seat and becomes trapped under the machine.<br><br>If a forklift is fitted with a seat belt, the operator must wear it. Forklifts must be used in accordance with WCB and ANSI Standards.<br><br>Competency of operators<br><br>A person must not operate mobile equipment unless the person:<br>• has received adequate instruction in the safe use of the equipment,<br>• has demonstrated to a qualified supervisor or instructor competency in operating the equipment,<br>• if operating equipment with air brakes, has a valid air brake certificate or a driver's license with an air brake endorsement, or evidence of successful completion of a course of instruction on air brake systems by an organisation acceptable to the Board, and<br>• is familiar with the operating instructions for the equipment.<br>• A forklift or other piece of mobile equipment must not be operated. If the grade or condition of the travel surface may result in a piece of mobile equipment having insufficient capability to maintain adequate control. | WCB Standard: A324 Forklift mounted work platforms<br><br>Rough Terrain Forklift: ANSI Standard ASME B56.6-1992, Safety Standards for Rough Terrain Forklift Trucks.<br><br>Reg 16.4 |
| Key Elements of Expectations | |
| The forklift is suited to the ground surface (i.e. conventional workshop style machines are not to be operated on soft and uneven surfaces).<br><br>Machines are provided with a substantial roll over protection (ROPS) structures.<br><br>The machine appears in good operational condition (e.g. no excessive engine or hydraulic oil leaks).<br><br>Machines are fitted with an audible warning device.<br><br>The operator has been trained and holds a Certificate of Training, which is in their possession and immediately available upon request.<br><br>Loads are not moved in a way that obscures the operator's view.<br><br>Where blind spots are present a spotter must be positioned to ensure the safety of any person including students.<br><br>Lifting is not permitted over occupied areas.<br><br>Workers are not standing on the forks of the lift truck | |

## 1.22 Laboratory Safety

| Outline | Reference |
|---|---|
| The Regulations outline general requirements and standards for Laboratory safety.<br>Specific requirements regarding Laboratory safety are addressed in Section 20 of the SD43 Employee Manual.<br>Where multi-employer activity relates to a Laboratory the Contractor must ensure coordinated OHS activity with SD43.<br>The District Health and Safety Officer are available to assist schools in establishing and maintaining safe laboratory working conditions. | Part 30 |
| Key Elements of Expectations | |
| The Contractor must ensure that hazards are identified, eliminated, or effectively controlled before commencing work in a Laboratory and do so in consultation with SD43.<br>The Contractor must ensure its activities are coordinated for the purpose of protecting the existing Laboratory OHS activities that are in place. This includes; WHMIS, Fire Control, Emergency Procedures, Evacuations, or Drills, and Universal Precautions including Bio-Hazardous material management and disposal.<br>The Contractor must ensure its activities are coordinated for the purpose of protecting existing Laboratory infrastructure including chemical storage, environmental or ventilation systems, gas, electricity, waste disposal, and water.<br>The Contractor must ensure workers including the first aid attendant have access to the Laboratory MSDS compilation. | |

## 1.23 Lifting Slings and Chains

| Outline | Reference |
|---|---|
| Only lifting slings and chains specifically designed for the purpose should be used to lift and carry loads at a workplace. This includes lifting by the use of cranes, earth moving equipment or mechanical lifting devices such as chain blocks.<br>Safety latches on lifting chains are not mandatory. However, they should be used.<br>Chains and slings used for lifting loads should be inspected by a competent person (Rigger) on a regular basis to ensure damaged or excessively worn equipment is identified and removed from service.<br>Chains and slings that are used for lifting purposes should not be used for towing or other activities that may shock load the equipment. When not in use, chains, slings and other lifting equipment should be stored in a reasonably clean and dry area and away from direct contact with chemicals or excessive heat. | Reg Part 15 Rigging |
| Key Elements of Expectations | |
| Chains, slings and other lifting equipment are not left lying around the site where they may get damaged.<br>Only approved lifting equipment is being used to lift and carry loads.<br>Chains, slings and attachments are marked with their Working Load Limit (WLL) and correctly identified.<br>Equipment is not being used to lift loads in excess of the WLL.<br>Synthetic fibre web slings must not be exposed to a temperature above 82°C (180°F) unless otherwise permitted by the manufacturer.<br>Chains and slings are padded or protected from sharp corners on the load.<br>There are no obvious signs of damage to chains and slings. Damaged or suspect chains and slings have been tagged and quarantined, or removed from site.<br>Sling selection, configuration and lifting points are appropriate.<br>Lifting chains and slings are not being used for towing purposes.<br>Soft slings are not used around concrete block<br>Rigging and slinging work must be done by or under the direct supervision of qualified workers familiar with the rigging to be used and with the code of signals authorized by the WCB for controlling hoisting operations.<br>Refer to page 55 (Mobile Equipment 1.24), and page 71 (Traffic Management 1.37). | Reg 15.30<br>ASME B30.9-1990, Slings<br>Reg 15.42, 15.46, 15.52, 15.55.<br>Reg 15.2 |

## 1.23 Manual Handling

| Outline | Reference |
|---|---|
| Manual handling is defined as any activity requiring the use of force exerted by a person to lift, lower, push, pull, carry or otherwise move, hold or restrain a person, animal or thing.<br><br>Manual handling accounts for a very high proportion of injuries within the construction sector. It forms an integral part of the work environment and provided basic practical safety precautions are taken manual handling tasks should be carried out safely.<br><br>Contractors must ensure a range of strategies have been implemented to reduce manual handling risks. This could include strategies such as a the use of cranes, forklifts, hand trolleys or similar aids, or arranging work to avoid double-handling, or purchasing controls to select materials/equipment which are easier to handle. | Reg Part 4 |
| Key Elements of Expectations | |
| Manual handling risks have been reduced as far as practicable by means such as –<br><br>a) Providing cranes, forklifts etc to minimise the need for manual handling<br><br>b) Weights have been reduced where practicable (e.g. concrete bags are limited to 20kgs)<br><br>c) Equipment frequently lifted by hand has suitable hand holds<br><br>d) Repetitive movement (i.e. bending) is minimized<br><br>e) Good housekeeping where manual handling occurs; and<br><br>f) Trolleys, racks etc are used to limit handling to between the knees and chest height where practicable.<br><br>Employees observed using correct lifting techniques.<br><br>Loads are not being carried that are obviously excessive or carrying loads over significant distances or such that vision is obscured. | Reg 4.46 – 4.53 |

## 1.24 Mobile Phones and Hand Held Devices

| Outline | Reference |
|---|---|
| Mobile phone policy must be developed by the Contractor to minimize the risk of accidents associated with hand held devices used while driving or operating equipment. | |
| Key Elements of Expectations | |
| The use of hand held mobile phones or other device while driving or operating mobile equipment on SD43 property is prohibited.<br>Contractors shall **not** respond by providing vehicles with hand free kits.<br>The Contractors policy should be similar to the outline below.<br>Employees must not make or receive a call on a mobile phone or hand held device (whether hands held or hands free) as the driver of a vehicle unless it is parked in a safe place. No line manager shall require an employee to receive a call on a mobile phone whilst driving. Contravention of these requirements will be regarded as a serious disciplinary matter. | |

## 1.25 Mobile Equipment

| Outline | Reference |
|---|---|
| Contractors should have systems that provide for regular inspection and maintenance of mobile plant. Only authorized and trained operators should operate mobile plant.<br><br>Both the operator and other personnel within close proximity to operating mobile plant should be considered when evaluating or inspecting systems of work and regulatory compliance regarding mobile plant.<br><br>Where an item of mobile plant is likely to overturn or an object come in contact with the operator the plant should be fitted with operator protection. Appropriate protection would include a rollover protective structure and operator restraint if there were a likelihood of the operator being ejected from the seat.<br><br>Operators of mobile equipment must be protected against falling, flying or intruding objects or material by means of suitable cabs, screens, grills, shields, deflectors, guards or structures. The means of protection must meet WCB standards.<br><br>Where a machine is fitted with a seatbelt, the driver must wear the seatbelt.<br><br>**Mobile plant and pedestrians**<br><br>Mobile plant that is operating in close proximity to pedestrians/children should be fitted with an audible warning device for reversing under the above circumstances a spotter must be present.<br><br>Where practicable, bunting and warning signs should be used to cordon off mobile plant operation that is in close proximity to high pedestrian traffic.<br><br>No part of mobile plant, or load, should ever enter the 'danger zone' of an overhead power lines.<br><br>Pedestrian workers in the vicinity of operating mobile plant should wear high visibility clothing.<br><br>Spotters and radio communication should be considered for operations that require extensive movements and numbers of mobile plant. | Part 16 |

| Key Elements of Expectations | |
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| Operators have evidence of training to operate equipment.<br>The Contractor must provide a copy of a valid certificate of inspection for all cranes, boom trucks, dewatering equipment, personnel hoists and other pieces of equipment before the equipment comes on site. All equipment must have the manufacturer's manual readily available. This applies to all equipment whether owned, rented, or subcontracted.<br>Where necessary, the plant has approved operator protective devices (roll over protection device, mesh, and seatbelts).<br>The contractor has adequate systems for regular inspection and maintenance of the plant.<br>Plant appears in sound condition, generally as indicated by:<br>a) Operator protective devices are free from damage and corrosion (where fitted)<br>b) Warning devices such as flashing lights, horn, reversing beepers are operational<br>c) Ladders/steps are in good condition<br>d) No fuel leaks<br>e) Engine oil and hydraulic oil leaks are not excessive<br>f) Windscreen and mirrors are reasonably clean and operational.<br><br>Plant is not operated in a way that may breach the 'danger zone' of overhead power lines.<br>Personnel do not ride on mobile plant other than in a specifically designed seat. | Reg 16.21 |

## 1.26 Motor Vehicle Safety

| Outline | Reference |
|---|---|
| Planning and implementing procedures can prevent motor vehicle accidents that occur during the course of work. | |
| Key Elements of Expectations | |
| The Contractor ensures personnel operating any vehicle on company business shall:<br>• Have a current, driver's license that is valid for operating the vehicle being driven<br>• Be mentally alert and posses the physical ability to drive a motor vehicle safely<br>• Be familiar with the motor vehicle they are operating<br>• Wear seat belts prior to moving the vehicle<br>• Refrain from using mobile phones while driving (see section on Mobile Phones)<br>• Understand procedures in the event of an accident. | |

## 1.27 Noise

| Outline | Reference |
|---|---|
| Hearing loss is dependant on both noise level and exposure duration.<br>The Regulations have set an 'exposure standard for noise' at 85dBA Lex (1 $Pa^2h$) daily exposure, measured as a weighted 8 hr equivalent level and135 dBA peak sound level, measured as a peak maximum level at any instant.<br>The Regulations require employers to; ensure personnel are not exposed to noise levels above these levels.<br>Any SD43 personnel have the right to stop work if considered to be too noisy.<br>The Contractor shall be responsible for adhering to municipal noise, and hours of operation by-laws. | Reg Part 7 |
| Key Elements of Expectations | |
| The Contractor has identified equipment emitting sound levels above 85dbA and has managed these so far as is practicable. Typically, this should be indicated as follows –<br>• Where practicable the Contractor has reduced noise levels at the source, by means other than personal protective hearing protection.<br>• Hearing protection signs have been erected.<br>• Site personnel are wearing approved hearing protection in proximity to noise hazards.<br>• Hearing tests are conducted at least once every 12 months after the initial test in accordance with the Regulations. | Reg 7.1 – 7.9 |

## 1.28 Overhead Power Lines and Utilities

| Outline | Reference |
|---|---|
| Safe working distances have been established within the Regulations for the protection of persons and plant working in the vicinity of overhead power lines, underground, and slab on grade services. The requirements refer to maintaining clearances from the power lines dependant upon the relevant voltage of the lines. The required clearance is referred to as the 'Limit Of Approach'.<br><br>The Contractor has identified all underground, and slab on grade services from plans and site examinations when required and is taking appropriate precautions as required. | Reg Part 19<br><br>Regulation 19.24 (2). |
| Key Elements of Expectations | |
| The Contractor knows the voltage of the overhead power lines.<br><br>A spotter has been assigned when required<br><br>Where persons or equipment must work within the Danger Zone, isolations or sleeves or other precautions have been arranged with SD43, WCB and the local power system authority.<br><br>The site layout is planned effectively to reduce working near power sources (e.g. Laydown areas are away from overhead power lines).<br><br>Where an oxygen deficient or enriched atmosphere is present or may occur a risk assessment has been conducted and atmospheric testing is taking place.<br><br>An effective rescue plan and emergency procedures are in place for every worker, and a drill has been conducted during the last year.<br><br>Particular care is taken when working in very high humidity, foggy conditions, and dusty or charged atmospheres as this can increase the ability for high voltage or static to arc and discharge. | |

## 1.29 Parking

| Outline | Reference |
|---|---|
| The Contractor must comply with all Municipal Regulations, and SD43 parking procedures and speed limits.<br>The Contractor is responsible for ensuring all deliveries for Project follow the same procedures.<br>No on site parking permitted outside of the designated contractor parking area. | Workers Compensation Act 2004 (Part 3, Division 3, Section 115) |

## 1.30 Personal Protective Equipment

| Outline | Reference |
|---|---|
| The Contractor's obligation regarding the use of Personal Protective Equipment at the workplace is based on Regulations Part 1.<br>The Regulations require all types of PPE to comply with relevant CSA or ANSI Standards.<br>The Regulations do not generally specify the type of protective equipment or locations that require the use of protective equipment. However, general industry standards are as follows:<br>Work sites<br>• Safety footwear for site personnel<br>• Safety helmets<br>• Shirt with sleeves<br>• Hearing protection (as required)<br>• Eye protection (as required)<br>• High visibility vests (as required by the Regulations) | Reg Part 8 |
| Key Elements of Expectations | |
| Where practicable the Contractor has applied other (more effective) strategies to minimize a reliance on PPE.<br>PPE areas are identified by signage where appropriate (Note: where helmets are required at a work site, signs must be at site entrances).<br>Site employees are observed correctly wearing the required PPE.<br>Items of PPE meet relevant standards and are in good condition.<br>Spare stocks of PPE are available.<br>PPE standards for visitors are appropriate.<br>Non-permitted outerwear; shorts, sleeveless shirts (less than 4 in.), inappropriate wording or graphics on clothing or P.P.E. | |

## 1.31 PCB Handling

| Outline | Reference |
|---|---|
| PCB (Polychlorinated Biphenyl) handling is considered a high-risk hazardous substance (see Guidelines Part 5 – Personal Hygiene).<br><br>In the workplace existing non –reusable PCB containing light fixture ballasts may need to be removed and disposed in accordance with the Regulations and best practice methods. | Guidelines Part 5 |
| Key Elements of Expectations | |
| The Contractor has a procedure for working with PCB's that will include but is not limited to:<br>• Dismantle<br>• Storage<br>• Removal and Containment<br>• Labelling<br>• Disposal<br>• Employee training<br>• PPE | |

## 1.32 Public Safety

| Outline | Reference |
|---|---|
| Construction and demolition sites create hazards for members of the public as well as employees.<br><br>The Contractor should be aware of obligations under the Workers Compensation Act where responsibilities also include protecting the health and safety of persons at or near the workplace.<br><br>Necessary precautions must be based on an risk assessment, considering factors such as –<br>• Proximity to the public (e.g. in or adjacent to a school)<br>• Hazards on the site and the degree to which they can be made safe when unattended. | Workers Compensation Act<br><br>Act 118 (2)<br><br>Act 119 (a) |
| Key Elements of Expectations | |
| Proximity to adjacent properties is considered.<br><br>Overhead protection is provided when overhead work is planned.<br><br>Site attendance or barriers are adequate to prevent unauthorized persons being on site or around hazards such as excavations or mobile plant and equipment.<br><br>Warning signs and lighting are displayed, if necessary.<br><br>Manholes and other openings including excavations are barricaded when unattended (or covered when practicable).<br><br>Secure storage of hazardous substances and other site materials that could cause a hazard.<br><br>Provision of temporary walkways or roads and arrangements for the direct control of pedestrians or traffic if necessary.<br><br>Control of dust and noise in sensitive areas.<br><br>Monitoring site access and egress points and control of visitors. | |

## 1.33 Security

| Outline | Reference |
|---|---|
| The Contractor shall comply with SD43 security requirements and abide by all existing security arrangements.<br>Contractors shall also expect to cooperate with SD43 when dealing with security related issues. | Workers Compensation Act 2004 (Part 3, Division 3, Section 115 |
| Key Elements of Expectations | |
| The Contractor has a risk management plan dealing with security issues.<br>Information on hazards and security measures is provided to the workforce including emergency phone numbers.<br>Security procedures are in place to control access and egress to SD43 sites.<br>Any breaches of security are considered an incident and are investigated appropriately.<br>Security procedures exist for visitors, workers and sub contractor workers. This will include identification procedures.<br>Measures to secure site and equipment outside regular work hours exist.<br>Vehicles are parked in assigned lots or designated areas.<br>SD43 has the right to refuse entry of personnel who do not pass security checks. | |

## 1.34 Work Site Preparation and Project Maintenance Protection

| Outline | Reference |
|---|---|
| The Regulations outline specific requirements for the work area including access, egress, slips and trips, wet floors, waste materials and extreme temperatures.<br>The Contractor must take additional steps to protect SD 43 assets such as; roads, curbs, activity areas, signage, landscaping, trees, fences and gates.<br>The Contractor must provide SD 43 with 48 hours written notice and must receive approval from SD 43 before an interruption of service can take place. | Reg 4.32 – 4.42 |
| Key Elements of Expectations | |
| Offensive odors must be controlled to eliminate disruption of activities at SD 43 facilities. This includes but is not limited to roofing, painting, and flooring.<br>SD43 floors, walls, ceilings, furniture, equipment, and systems are protected.<br>Mats are installed at entries to control tracking of dirt to other areas.<br>Signage is provided after cleaning where floors are wet and slippery.<br>Waste containers are adequate and are being emptied regularly.<br>Spill trays are in place and effective.<br>Dust and debris is kept at a minimum.<br>Good housekeeping is observed. | |

## 1.35 Scaffolding

| Outline | Reference |
|---|---|
| SD 43 requires that the Contractor or their qualified designate must inspect scaffolds used by workers to ensure they are in a safe condition and are able to withstand the load before use.<br>The Regulations outline detailed requirements for scaffolding sizing, materials and stability. | Regulation Part 13 |
| Key Elements of Expectations | |
| Hoarding or Modu-loc fencing must encompass scaffolds to eliminate unauthorized access.<br>Trained persons are used to erect, modify or dismantle a scaffold.<br>Scaffolds from which a person could fall 3 m or more should be inspected and tagged by a trained Scaffolder –<br>• Before first being used<br>• After any alteration or repair<br>• At not more than 30 day intervals.<br>Incomplete scaffolds that are left unattended have danger/warning signs or other means to prevent unauthorised use.<br>Scaffolding equipment is lowered carefully and not dropped.<br>Scaffolding is erected on a firm-supporting surface.<br>The platform of each scaffold must be a minimum nominal width of 50 cm (20 in), except that a nominal 30 cm (12 in) wide work platform may be used with ladder jacks, pump jack or similar systems,<br>Edge protection is provided for each working platform on a scaffold where there is a risk a person can fall 3 metres or more.<br>Edge protection has either a top rail with mid-rail, or top rail with steel mesh. Wire and fibre rope must not be used as edge protection.<br>Toeboards are provided at working platforms.<br>Safe access to each scaffold must be provided. Where ladders are used they must be single ladders (i.e. not extension) meet the relevant Canadian Standards, angled between one in four and one in six and secured against movement.<br>Scaffolds should not be erected in close proximity to overhead electrical power lines.<br>Mobile plant should be kept clear of scaffolds particularly when the scaffold is in use. | WCB Standard: WPL 1-2004 Design, Construction and Use of Wood Frame Scaffolds.<br>CSA S269.2 Access Scaffolding for Construction Purposes |

## 1.36 Smoking

| Outline | Reference |
|---|---|
| SD43 must ensure employees are not exposed to environmental tobacco smoke, i.e. Smoking is not permitted on SD43 property.<br><br>The Contractor must eliminate the exposure of workers at any workplace to environmental tobacco smoke by prohibiting smoking in the workplace. | Reg 4.81 |
| Key Elements of Expectations | |
| The Contractor must eliminate the exposure of workers and the public at any workplace to environmental tobacco smoke by prohibiting employees from smoking on SD 43 property. | |

1.37 Tools, Equipment and Machinery

| Outline | Reference |
|---|---|
| **General**:<br>SD43 requires suppliers and users of tools, equipment and machinery have been given due consideration to ensure that persons that correctly use plant are not exposed to hazards.<br>**Safeguarding requirements:**<br>Designers, manufacturers and suppliers of plant to a workplace must ensure that, where practicable, the plant has been provided with adequate guarding. However, this obligation does not diminish the employer's obligation to ensure guarding is adequate.<br>In some cases guarding will need to be designed and retrofitted in older plant manufactured prior to existing guarding regulations.<br>The Contractor must ensure that machinery and equipment is fitted with adequate safeguards that comply with the Regulations and relevant Standards. | Part 12<br>Reg 12.2<br>Reg 12.3<br>*CSA Standard Z432-94, Safeguarding of Machinery* |
| Key Elements of Expectations | |
| The Contractor must ensure that tools are not left unattended.<br>The Contractor must ensure any tool or piece of equipment with a defective or removed safety device is removed from service. | |
| **General:**<br>Unauthorized modifications (e.g. handles of tools are not broken or taped together).<br>The plant is being used in a manner for which it is designed.<br>Damaged or unsafe plant has been identified and removed from service.<br>Equipment and machinery operating controls are suitably identified.<br>Equipment and machinery controls can be locked into the "off" position to enable disconnection of all motive power.<br>Any emergency stop devices are prominent, clearly marked and immediately accessible to the operator.<br>Attachments have not been welded on to forged steel tools.<br>**Safeguarding:**<br>Equipment and machinery with moving parts and the potential to cause injury has been fitted with guards where practicable.<br>Guards have not been removed or over-ridden. If guards are removed, the plant is shut down and a Danger or Out-of-Service Tag is fitted. | |

## 1.38 Traffic Management

| Outline | Reference |
|---|---|
| All efforts should be made to ensure the work does not extend onto Roads, if it is unavoidable the following documents are to be followed.<br><br>Traffic control procedures in British Columbia must meet the requirements of the latest edition of the ***Traffic Control Manual for Work on Roadways (the "Traffic Control Manual")*** issued by the Ministry of Transportation and Highways (MOTH), Highway Engineering Branch.<br><br>The Contractor must ensure that effective traffic control is provided and used whenever the uncontrolled movement of vehicle traffic could be hazardous to workers.<br><br>Note: Effective traffic control may include buffer vehicles, traffic lights, signs, flashing arrow boards, barricades, cones, detours, traffic control persons (TCPs) or other techniques and devices, suitable for the prevailing circumstances.<br><br>During school hours and when students are not in class requires heightened awareness and adequate controls | Reg Part 18<br><br>Reg 11.5 |
| Key Elements of Expectations | |
| A copy of the Traffic Control Manual is available on-site for supervisors and traffic control persons etc.<br><br>The Contractor has prepared a Traffic Management Plan (TMP).<br><br>The TMP has provided a safe and satisfactory flow of traffic.<br><br>Adequate provision is made for pedestrian safety.<br><br>Signs are properly displayed, securely mounted, are not hidden from view (e.g. by vegetation or parked cars) and do not obscure a driver's view.<br><br>The traffic control system gives adequate advance warning and provides a transition (taper) area when approaching lane closures.<br><br>Qualified Traffic Control Persons are in place when required.<br><br>High visibility vests and other clothing are worn as outlined in the Regulations. | |

## 1.39 Universal Precautions

| Outline | Reference |
|---|---|
| Universal Precautions are steps we take to protect ourselves when we come into contact with the blood or body fluids of other people. All workers must follow the standard (universal) precautions whenever there is a potential for exposure to blood or body fluids.<br><br>The SD43 Employee Manual, document titled "Universal Precautions" must be read, understood and followed by all SD43 staff in the at risk group. (See Section 8, Appendix 8C of The SD43 Employee Manual) | Part 6. &<br>Reg. 5.54 |
| Key Elements of Expectations | |
| If a worker has or may have occupational exposure to a blood borne pathogen, or to other bio-hazardous material as specified by the WCB;<br><br>The Contractor must ensure and implement an exposure control plan as specified by the WCB Regulations Guidelines and Policies<br><br>The Contractor must ensure first aid attendants follow the Universal Precautions Procedures as described in the WCB OFAA of BC training manual. | Reg. 5.54 |

## 1.40 Warning Signs

| Outline | Reference |
|---|---|
| Warning signs are required to be displayed in a workplace where hazards exist.<br>Signs should be located such that they are prominent. In the case of work sites requiring safety helmets and other PPE, signs should be positioned at site entrances.<br>Other sections of this Handbook refer to specific applications of signs. Typically signs may be required in areas of –<br>• Traffic management<br>• Dangerous goods storage<br>• Explosive power tools or nail guns<br>• First aid posts or evacuation muster points<br>• Noise hazards<br>• General site requirements for PPE<br>• Instructions to visitors (i.e. All visitors to report to site office)<br><br>A responsible person should ensure that the selected signs are suitable for the intended purpose.<br>If there are people in the workplace that do not have an adequate understanding of the English language, wording on signs may need to be repeated in one or more other languages.<br>If a symbol is used it should accurately convey the appropriate message to the workplace.<br>Combinations of symbols and wording can be used in customizing signs to suit a workplace or particular hazard warning. | |
| Key Elements of Expectations | |
| Appropriate signs are a site entrances (e.g. site PPE, requirements, visitor reporting).<br>Appropriate signs are positioned where a hazard may not be readily apparent (e.g. flammable goods storage areas).<br>Signs are maintained in a clean and legible condition. | |

1.41 Welding

| Outline | Reference |
|---|---|
| Health and Safety Regulations Part 12, Regs 12.112 – 12.126 apply to welding. | Part 12 |
| Key Elements of Expectations | |
| **Welding (general)**<br>Ventilation is adequate (natural or forced) with fume extractors used where necessary.<br>Adequate precautions have been taken to prevent fires.<br>Leads are protected from fire or mechanical damage.<br>Gas cylinders are secured against toppling over.<br>**Arc Welding**<br>PPE is worn including a welding mask, elbow length gloves, and high ankle boots (or spats). The need for a hood, leather jacket, apron and a respirator is situational. Clothing should be cotton or similar flame retardant material, with long sleeve shirt and pants.<br>Electrical welding equipment is connected to the power supply by an approved plug or socket.<br>All leads are adequately insulated.<br>Where practicable, joints to electrical leads are avoided and not exceeding 9 metres in length.<br>Makeshift work leads (e.g. steel rods) are not used under any circumstances.<br>Earthing must be established as close to the welding job as is practicable.<br>An all-insulated hand piece is used.<br>Welding screens should be used wherever practicable, and must be used in areas where the public could be exposed to sparks or flash. Welding is not permitted where children have not been effectively isolated from the welding activity and location.<br>All leads and equipment should be kept clear of water. Where a damp environment cannot be avoided –<br>a) The welder checks the condition of leads before each use<br>b) Joints in the welding leads are to be kept to a minimum and kept dry<br>c) Additional power leads should be kept to a minimum (e.g. lighting)<br>d) The welder keeps as dry as practicable, particularly the gloves.<br>**Gas Welding**<br>Flash arresters are fitted at the regulator and at the hand piece. | |

## 1.42 Working Alone or in Isolation

| Outline | Reference |
|---|---|
| The Contractor must ensure, develop, and implement a written procedure for checking the well-being of a worker assigned to work alone or in isolation under conditions which present a risk of disabling injury, if the worker might not be able to secure assistance in the event of injury or other misfortune.<br><br>The Coquitlam School District will provide a means of periodically checking the well being of their own employees that are required to work alone during their normal work patterns. Working Alone Procedures for SD43 employees are described in Section 21 of the SD43 Employee Manual. | |
| Key Elements of Expectations | |
| A system of checking the workers well being at timed intervals and the end of the shift is in place and recorded. The timed intervals must be developed in consultation with the worker assigned to work alone or in isolation.<br><br>An emergency procedure including rescue provisions to be followed when the worker to be checked on cannot be contacted.<br><br>The system must be coordinated and must be developed in consultation with the JHSC or the worker health and safety representative or Qualified Coordinator, as applicable. | Reg 4.21 to 4.23 |

## 1.43 Workplace Conduct

| Outline | Reference |
|---|---|
| The Board of School trustees recognizes the right of all students and employees to learn and work in an environment free from personal, discriminatory or sexual harassment. (See SD43 Policy Statement; Personal Discriminatory And Sexual Harassment)<br><br>The Board all employees, students and individuals including the Contractor and Sub-contractors within school communities shall have a responsibility to promote, monitor and maintain learning environments and workplaces that are free from harassment. | BC Human Rights Code |
| Key Elements of Expectations | |
| The Contractor must ensure workers are aware of the definitions of harassment and discrimination and that it will not be tolerated.<br>Including but not limited to;<br>• Violence<br>• Swearing<br>• Whistling<br>• Sexual suggestive remarks, leering, or acts of a suggestive nature<br>• Graffiti or postings of documents | Reg 4.24 to 4.31 |

## 2.0 Records Management

| Outline | Reference |
|---|---|
| Recording and retaining documents is an essential tool when measuring health and safety performance. Recalling OHS information can assist identify common causes or trends in accidents, monitor the effectiveness of corrective actions and demonstrate due diligence. | |

## 2.1 Due Diligence

| Outline | Reference |
|---|---|
| Due diligence is the level of judgment; care, prudence, determination and activity that a person would reasonably be expected to do under particular circumstances.<br><br>To exercise this due diligence SD43 requires Contractors maintain and control the following documents:<br><br>• Worker orientation records<br>• Inspection reports and records of corrective action taken to solve problems<br>• Records of meetings and crew talks where safety issues were discussed<br>• Records demonstrating progressive discipline to enforce safety rules and procedures<br>• Sub contractor pre qualification documents<br>• First aid records, medical certificates, hearing tests<br>• Records of worker/supervisor training<br>• Incident/accident investigation reports and records of corrective action taken<br>• Supervisors notes and logs of safety contacts with workers<br>• Joint Health and Safety Committee meeting reports (if applicable)<br>• Equipment logs and maintenance records<br>• Emergency response plan and records of drills and any resulting improvements<br>• Statistics on the frequency and severity of incidents/injuries. | |

## 3.0 Accident investigation and reporting

| Outline | Reference |
|---|---|
| Reporting and investigation of incidents even those of a seemingly minor nature is an important part of the Hazard Management Process. Thorough investigation and follow up procedures will aid in injury prevention.<br><br>Types of incidents that are required to be reported include:<br><br>• fatality, lost time injury, restricted work, medical aid and first aid<br>• environmental that includes spill or leak<br>• fire, explosion, vehicle accident and property damage<br>• damage to third party property<br>• security breach<br>• inspection or order from the WCB.<br><br>**SD43 requires the Contractor**:<br><br>• Establishes a process to ensure incidents, near misses are reported, reviewed and recommendations for prevention are developed.<br>• Reports all serious incidents including, lost time, medical treatment and near miss incidents with the potential for serious injury to the SD43 representative.<br>• Informs SD43 of serious incidents, with written notification, within 2 hrs and provides a comprehensive review/analysis report with recommendations and corrective actions within 12 hours.<br>• First aid treatments are recorded and maintained. | |

## 4.0 Return to Work Program

| Outline | Reference |
|---|---|
| Preventing workplace injuries and illness is the responsibility of everyone at the workplace. When injuries and illness do occur, it is important for the Contractor to minimize the human and financial impacts by focusing on assisting the employee to return to safe and productive work as soon as medically possible.<br><br>Many injured employees can safely perform productive and transitional work as part of their recovery process.<br><br>SD43 must ensure the Contractor has a Return to Work Program for the Project, a return to work coordinator and personnel have been trained in return to work processes. | |