

Part 1 General**1.1 RELATED SECTIONS**

- .1 Section 01 35 29.14 – Health and Safety for Contaminated Sites.

1.2 REFERENCES

- .1 Canadian General Standards Board (CGSB)
 - .1 CGSB 51-GP-51M-[81], Polyethylene Sheet for Use in Building Construction.
- .2 Transportation and Dangerous Goods Act (1999)
- .3 Canadian Council of Ministers of the Environment (CCME) Documentation

1.3 SUBMITTALS

- .1 Submit, prior to start of work, plan detailing management of hazardous wastes. Submit written documentation of weekly hazardous waste inspections monthly basis.
- .2 Submittals for Progress Meetings: make submittals at least 24 hours prior to scheduled progress meetings as follows:
 - .1 Updated progress schedule detailing activities. Include review of progress with respect to previously established dates for starting and stopping various stages of Work, major problems and action taken, injury reports, equipment breakdown, and material removal.
 - .2 Copies of transport manifests, trip tickets, and disposal receipts for waste materials removed from work area.
 - .3 Weekly copies of site entry and work area logbooks with information on worker and visitor access.
 - .4 Other information required by the Contract Administrator or relevant to agenda for upcoming progress meeting.
- .3 Site Layout: within 7 days after date of Notice to Proceed and prior to mobilization to site, submit site layout drawings showing existing conditions and facilities, construction facilities and temporary controls provided by Contractor including following:
 - .1 Means of ingress, egress and temporary traffic control facilities.
 - .2 Equipment and material staging areas.
- .4 Submit documentation verifying that hazardous materials employees have been trained, tested, and certified to safely and effectively carry out their assigned duties in accordance with Section 01 35 29.14 - Health and Safety for Contaminated Sites.

1.4 REGULATORY REQUIREMENTS

- .1 Provide erosion and sediment control in accordance with regulations.

- .2 Comply with federal, provincial, and local anti-pollution laws, ordinances, codes, and regulations when disposing of waste materials, debris, and rubbish.
- .3 Work to meet or exceed minimum requirements established by federal, provincial, and local laws and regulations which are applicable.
 - .1 Contractor: responsible for complying with amendments as they become effective.
- .4 In event that compliance exceeds scope of work or conflicts with specific requirements of contract notify the Contract Administrator immediately.

1.5 SEQUENCING AND SCHEDULING

- .1 Do not commence Work involving contact with potentially contaminated materials until approved by the Contract Administrator.

1.6 SOIL STOCKPILING FACILITIES

- .1 Provide, maintain, and operate storage/stockpiling facilities as required.
- .2 Install liner/poly below proposed stockpile locations to prevent contact between stockpile material and ground. Equip facility with tarps capable of covering stockpiled material until the Contract Administrator advises Contractor to place the soil in the excavation.

1.7 VEHICULAR ACCESS AND PARKING

- .1 Maintenance and Use:
 - .1 Prevent contamination of access roads. Immediately scrape up debris or material on access roads which is suspected to be contaminated as determined by the Contract Administrator; transport and dispose of in appropriate off-site disposal facility. Clean access roads at least once per shift.
 - .2 The Contract Administrator may collect soil samples for chemical analyses from traveling surfaces of constructed and existing access routes prior to, during, and upon completion of Work. Excavate and dispose of clean soil contaminated by Contractor's activities at no additional cost to the Contract Administrator.

1.8 DUST AND PARTICULATE CONTROL

- .1 Execute Work by methods to minimize raising dust from construction operations.
- .2 Implement and maintain dust and particulate control measures as determined necessary by the Contract Administrator during construction and in accordance with Province of Manitoba regulations.
- .3 Provide positive means to prevent airborne dust from dispersing into atmosphere. Use potable water for dust and particulate control.
- .4 Use chemical means for water misting system for dust and particulate control only with the Contract Administrator's prior written approval.

- .5 As minimum, use appropriate covers on trucks hauling fine or dusty material. Use watertight vehicles to haul wet materials.
- .6 Prevent dust from spreading to adjacent property sites.
- .7 The Contract Administrator will stop work at any time when Contractor's control of dusts and particulates is inadequate for wind conditions present at site, or when air quality monitoring indicates that release of fugitive dusts and particulates into atmosphere equals or exceeds specified levels.
- .8 If Contractor's dust and particulate control is not sufficient for controlling dusts and particulates into atmosphere, stop work. Contractor must discuss procedures that Contractor proposes to resolve problem. Make necessary changes to operations prior to resuming excavation, handling, processing, or other work that may cause release of dusts or particulates.

1.9 POLLUTION CONTROL

- .1 Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious toxic substances and pollutants produced by construction operations.
- .2 Be prepared to intercept, clean up, and dispose of spills or releases that may occur whether on land or water. Maintain materials and equipment required for cleanup of spills or releases readily accessible on site.
- .3 Promptly report spills and releases potentially causing damage to environment to:
 - .1 Authority having jurisdiction or interest in spill or release including conservation authority, water supply authorities, drainage authority, road authority, and fire department.
 - .2 Owner of pollutant, if known.
 - .3 Person having control over pollutant, if known.
 - .4 The City of Winnipeg.
- .4 Contact manufacturer of pollutant if known and ascertain hazards involved, precautions required, and measures used in cleanup or mitigating action.
- .5 Take immediate action using available resources to contain and mitigate effects on environment and persons from spill or release.
- .6 Provide spill response materials including, containers, adsorbent, shovels, and personal protective equipment. Make spill response materials available at all times in which hazardous materials or wastes are being handled or transported. Spill response materials: compatible with type of material being handled.

1.10 EQUIPMENT DECONTAMINATION

- .1 At minimum, perform following steps during equipment decontamination: mechanically remove packed dirt, grit, and debris by scraping and brushing without using steam or high-pressure water to reduce amount of water needed and to reduce amount of contaminated rinsate generated. Use high-pressure, low-volume, hot water or steam supplemented by detergents or solvents as appropriate. Pay particular attention to tire treads, equipment tracks, springs, joints, sprockets, and undercarriages. Scrub surfaces with long handle scrub brushes and cleaning agent. Rinse off and collect cleaning agent. Air dry equipment in Clean Zone before removing from site or travelling on clean areas. Perform assessment as directed by the Contract Administrator to determine effectiveness of decontamination.
- .2 Each piece of equipment will be inspected by the Contract Administrator after decontamination and prior to removal from site and/or travel on clean areas. The Contract Administrator will have right to require additional decontamination to be completed if deemed necessary.
- .3 Furnish and equip personnel engaged in equipment decontamination with protective equipment including suitable disposable clothing, respiratory protection, and face shields.
- .4 Have on hand sufficient pumping equipment, of adequate pumping capacity and associated machinery and piping in good working condition for ordinary emergencies, including power outage, and competent workers for operation of pumping equipment. Maintain piping and connections in good condition and leak-free.

1.11 WATER CONTROL

- .1 Maintain excavations free of water.
- .2 Protect site from puddling or running water. Grade site to drain.
- .3 Prevent surface water runoff from leaving work areas.
- .4 Do not discharge decontaminated water, or surface water runoff, or groundwater which may have come in contact with potentially contaminated material, off site or to municipal sewers.
- .5 Prevent precipitation from infiltrating or from directly running off stockpiled materials. Cover stockpiled materials with an impermeable liner during periods of work stoppage including at end of each working day and as directed by the Contract Administrator.
- .6 Direct surface waters that have not contacted potentially contaminated materials to existing surface drainage systems. Control surface drainage including ensuring that gutters are kept open, water is not directed across or over pavements or sidewalks except through approved pipes or properly constructed troughs, and runoff from unstabilized areas is intercepted and diverted to suitable outlet.
- .7 Dispose of water in manner not injurious to public health or safety, to property, or to any part of Work completed or under construction.

- .8 Provide, operate, and maintain necessary equipment appropriately sized to keep excavations, staging pads, and other work areas free from water.
- .9 Contain water from stockpiled materials.
- .10 Have on hand sufficient pumping equipment, machinery, and tankage in good working condition for ordinary emergencies, including power outage, and competent workers for operation of pumping equipment.

1.12 DEWATERING

- .1 Dewater various parts of Work including, without limitation, excavations, structures, foundations, and work areas. Water in the tank nest is to be hauled to a licensed disposal facility as approved by the Contract Administrator.
- .2 Employ construction methods, plant procedures, and precautions that ensure Work, including excavations, are stable, free from disturbance, and dry.

1.13 PROGRESS CLEANING

- .1 Maintain cleanliness of Work and surrounding site to comply with federal, provincial, and local fire and safety laws, ordinances, codes, and regulations.
- .2 Co-ordinate cleaning operations with disposal operations to prevent accumulation of dust, dirt, debris, rubbish, and waste materials.

1.14 FINAL DECONTAMINATION

- .1 Perform final decontamination of construction facilities, equipment, and materials which may have come in contact with potentially contaminated materials prior to removal from site.
- .2 Perform decontamination as specified to satisfaction of the Contract Administrator. The Contract Administrator will direct Contractor to perform additional decontamination if required.

1.15 REMOVAL AND DISPOSAL

- .1 Remove surplus materials and temporary facilities from site.
- .2 Dispose of non-contaminated waste materials, litter, debris, and rubbish off site.
- .3 Do not burn or bury rubbish and waste materials on site.
- .4 Do not dispose of volatile or hazardous wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
- .5 Do not discharge wastes into streams or waterways.

- .6 Dispose of following materials at appropriate off-site facility identified by Contractor and approved by the Contract Administrator: Debris including excess construction material.
 - .1 Non-contaminated litter and rubbish.
 - .2 Disposable PPE worn during final cleaning.
- .7 Dispose of materials as directed by the Contract Administrator.
- .8 Minimize generation of hazardous waste to maximum extent practicable. Take necessary precautions to avoid mixing clean and contaminated wastes.
- .9 Identify and evaluate recycling and reclamation options as alternatives to land disposal, such as:
 - .1 Hazardous wastes recycled in manner constituting disposal;
 - .2 Hazardous waste burned for energy recovery;
 - .3 Lead-acid battery recycling; Hazardous wastes with economically recoverable precious metals.

END OF SECTION