PART 1 - GENERAL

1.1 Regulatory Requirements

.1 Comply with federal, provincial/territorial, and local anti-pollution laws, ordinances, codes, and regulations when disposing of waste materials, debris, and rubbish.

1.2 Sequencing and Scheduling

.1 Do not commence Work involving contact with potentially contaminated materials until decontamination facilities are operational and approved by Consultant.

1.3 Dust and Particulate Control

.1 Execute Work by methods to minimize raising dust from construction operations.

.2 Provide positive means to prevent airborne dust from dispersing into atmosphere. Use potable water for water misting system for dust and particulate control.

.3 Use chemical means for water misting system for dust and particulate control only with Consultant's prior written approval.

.4 As minimum, use appropriate covers on trucks hauling fine or dusty material. Use watertight vehicles to haul wet materials.

.5 Prevent dust from spreading to adjacent property sites.

.6 Consultant may 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.

.7 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 all necessary changes to operations prior to resuming any excavation, handling, processing, or any other work that may cause release of dusts or particulates.

1.4 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 the environment to:

.1 Authority having jurisdiction or interest in spill or release including any 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 Consultant.

.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.

1.5 Erosion and Sediment Control

.1 Plan and execute construction by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas, from stockpiles, staging areas, and other work areas. Prevent erosion and sedimentation.

.2 Minimize amount of bare soil exposed at one time. Stabilize disturbed soils as quickly as practical. Strip vegetation, regrade, or otherwise develop in such a way as to minimize erosion. Remove accumulated sediment resulting from construction activity from adjoining surfaces, drainage systems, and water courses, and repair damage caused by soil erosion and sedimentation as directed by Consultant.

.3 Provide and maintain temporary measures which may include, but are not limited to, silt fences, hay or straw bales, ditches, geotextiles, drains, berms, terracing, riprap, temporary drainage piping, sedimentation basins, vegetative cover, dikes, and any other construction required to prevent erosion and migration of silt, mud, sediment, and other debris off site or to other areas of site where damage might result, or that might otherwise be required by Laws and Regulations. Make sediment control measures available during construction. Place silt fences and/or hay or straw bales in ditches to prevent sediments from escaping from ditch terminations.

.4 Hay or Straw Bale: Wire bound or string tied; securely anchored by at least 2 stakes or rebars driven through bale 300 mm to 450 mm into ground; chinked (filled by wedging) with hay or straw to prevent water from escaping between bales; and entrenched a minimum of 100 mm into ground.

.5 Silt Fence: An assembled, ready to install unit consisting of geotextile attached to driveable posts. Geotextile shall be uniform in texture and appearance, having no defects, flaws, or tears that would affect its physical properties; and contain sufficient ultraviolet ray inhibitor and stabilizers to provide minimum 2-year service life from outdoor exposure.

.6 Net Backing: Industrial polypropylene mesh joined to geotextile at both top and bottom with double stitching of heavy-duty cord, with minimum width of 750 mm.

.7 Posts: Sharpened wood, approximately 50 mm square, protruding below bottom of geotextile to allow minimum 450 mm embedment; post spacing 2.4 m maximum. Securely fasten each post to geotextile and net backing using suitable staples.

.8 Plan construction procedures to avoid damage to work or equipment encroachment onto water bodies or drainage ditch banks. In event of damage, promptly take action to mitigate effects. Restore affected bank or water body to existing condition.

.9 Installation:

.1 Construct temporary erosion control items as indicated. Actual alignment and/or location of various items as directed by Consultant.

.2 Do not construct bale barriers and silt fence in flowing streams or in swales.

.3 Check erosion and sediment control measures weekly after each rainfall; during prolonged rainfall check daily.

.4 Bales and/or silt fence may be removed at beginning of work day, but shall be replaced at the end of work day.

.5 Whenever sedimentation is caused by stripping vegetation, regrading, or other development, remove it from adjoining surfaces, drainage systems, and watercourses, and repair damage as quickly as possible.

.6 Prior to or during construction, Consultant may require the installation or construction of improvements to prevent or correct temporary conditions on site. Improvements may include berms, mulching, sediment traps, detention and retention basins, grading, planting, retaining walls, culverts, pipes, guardrails, temporary roads, and other measures appropriate to specific condition. Temporary improvements must remain in place and in operation as necessary or until otherwise directed by Consultant.

.7 Repair damaged bales, end runs, and undercutting beneath bales.

.8 Unless indicated or directed by Consultant, remove temporary erosion and sediment control devices upon completion of Work. Spread accumulated sediments to form a suitable surface for seeding or dispose of, and shape area to permit natural drainage to satisfaction of Consultant. Materials once removed become property of Contractor.

.10 Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.

.11 Do not disturb existing embankments or embankment protection.

.12 Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

.13 If soil and debris from site accumulate in low areas, storm sewers, roadways, gutters, ditches, or other areas where in Consultant's determination it is undesirable, remove accumulation and restore area to original condition.

1.6 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 Coordinate cleaning operations with disposal operations to prevent accumulation of dust, dirt, debris, rubbish, and waste materials.

1.7 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 Consultant. Consultant will direct Contractor to perform additional decontamination if required.

1.8 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 Consultant: Debris including excess construction material, non-contaminated litter and rubbish; disposable PPE worn during final cleaning; wastewater removed from wastewater storage tank, wastewater generated from final decontamination operations including wastewater storage tank cleaning; and lumber from decontamination pads.

PART 1 - GENERAL

1.1 References

.1 Canada Labour Code, Canada Occupational Safety and Health Regulations, SOR/96-525.

1.2 Submittals

.1 Contractor's site-specific Health and Safety Plan: Within 7 days after date of Notice to Proceed and prior to mobilization to site, submit site-specific Health and Safety Plan. Contractor's site-specific Health and Safety Plan must address items as follows:

.2 Safety and health risk or hazard analysis for each site task and operation found in work plan.

.3 Personnel training requirements including as follows:
.1 Names of personnel and alternates responsible for site safety and health, hazards present on site, and use of personal protective equipment.
.2 Work practices by which personnel can minimize risks from hazards, safe use of engineering controls and equipment on site, medical surveillance requirements, including recognition of symptoms and signs which might indicate overexposure to hazards, and elements of site-specific Health and Safety Plan.

.4 Personal protective equipment (PPE) program addressing:
.1 Donning and doffing procedures.
.2 PPE selection based upon site hazards.
.3 PPE use and limitations of equipment.
.4 Work mission duration, PPE maintenance and storage.
.5 PPE decontamination and disposal.
.6 PPE inspection procedures prior to, during, and after use.

.7 Evaluation of effectiveness of PPE program, and limitations during temperature extremes, and other appropriate medical considerations.
.8 Medical surveillance requirements for personnel assigned to work at site.
.9 Frequency and types of air monitoring, personnel monitoring, and environmental sampling techniques and instrumentation to be used, including methods of maintenance and calibration of monitoring and sampling equipment.
.10 Site control measures to be employed at site including site map, site work zones, use of 'buddy system', site communications including site security, alerting means for emergencies, standard operating procedures or safe work practices, and identification of nearest medical assistance.
.11 Decontamination procedures for both personnel and equipment.
.12 Emergency response requirements addressing: Pre-emergency planning, personnel roles, lines of authority and communication, emergency recognition and prevention, safe distances and places of refuge, site security and control, evacuation routes and procedures, decontamination procedures not covered under decontamination section, emergency medical treatment and first aid, emergency alerting and response procedures, critique of response and follow-up, PPE and emergency equipment, site topography, layout, prevailing weather conditions, and procedures for reporting incidents to local, provincial/territorial, or federal agencies.
.13 Written respiratory protection program for project activities.
.14 Procedures dealing with heat and/or cold stress.
.15 Confined space entry procedures.
.16 Spill containment program if drummed waste material is generated, excavated, stored, or managed on site.

.5 Consultant will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within 7 days after receipt of plan. Revise plan as appropriate and resubmit plan to Consultant within 7 days after receipt of comments from Consultant.

.6 Medical Surveillance: Within 7 days after date of Notice to Proceed and prior to mobilization to site, submit

certification of medical surveillance for site personnel, and submit additional certifications as personnel are sent to site.

.7 Respirator Fit Testing: Within 7 days after date of Notice to Proceed and prior to mobilization to site, submit proof of respirator fit testing for site personnel.

.8 On-site Contingency and Emergency Response Plan: Address standard operating procedures to be implemented during emergency situations.

.9 Off-site Contingency and Emergency Response Plan:
.1 Prior to commencing Work involving handling of hazardous materials, develop an off-site Contingency and Emergency Response Plan.
.2 Plan must provide immediate response to serious site occurrence such as explosion, fire, or migration of significant quantities of toxic or hazardous material from site.

1.3 Regulatory Requirements

.1 Comply with specified standards and regulations to ensure safe operations at site containing hazardous or toxic materials.

1.4 General Requirements

.1 Develop written site-specific Health and Safety Plan prior to commencing any site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.

.2 Ensure Health and safety guidelines provide for safe and minimal risk working environment for site personnel and minimize impact of activities involving contact with any hazardous materials or hazardous wastes on general public and surrounding environment.

.3 Relief from or substitution for any portion or provision of minimum Health and Safety Guidelines specified herein or reviewed site-specific Health and Safety Plan must

submitted to Consultant in writing. Consultant will respond in writing, either accepting or requesting improvements.

1.5 Responsibility

.1 Be responsible for safety of persons and property on site and for protection of persons off site and environment to extent that they may be affected by conduct of Work.

.2 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial/ territorial, and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

1.6 Hazard Communication Requirements

.1 Comply with Canada Labour Code, Canada Occupational Safety and Health Regulations, Part X - Hazardous Substances.

.2 Provide Consultant with Material Safety Data Sheets (MSDS) and documentation on any "hazardous" chemical that Contractor or Contractor Representatives plan to bring onto site.

1.7 Work Stoppage

.1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

.2 Assign responsibility and obligation to Health and Safety Officer where required to stop or start Work when, at Health and Safety Officer's discretion, it is necessary or advisable for reasons of health or safety. Consultant may also stop Work for health and safety considerations.

1.8 Unforeseen Hazards

.1 Should any unforeseen or peculiar safety-related factor, hazard, or condition become evident during performance of Work, stop work and immediately advise Consultant verbally and in writing.

1.9 Personnel Health, Safety, and Hygiene

.1 Medical Surveillance:

.1 Conduct medical surveillance of personnel as required by specified regulations.

.2 Training: Ensure personnel entering site are trained in accordance with specified personnel training requirements. Training session must be completed by Health and Safety Officer.

PART 1 - GENERAL

1.1 General Protection

.1 Do not disrupt airport business except as permitted by Consultant.

.2 Provide temporary protection for safe handling of public, personnel, pedestrians and vehicular traffic.

.3 Provide barricades and lights where directed.

1.2 Movement of Equipment and Personnel

.1 In areas of airport not closed to aircraft traffic:

.1 Obtain Consultant's approval on scheduling of Work.
.2 Control movements of equipment and personnel as directed by Consultant.
.3 Provide qualified field personnel at locations designated by Consultant to relay signals from airport traffic control tower to equipment and personnel wishing to cross live traffic areas.
.4 Obey signals from airport traffic control tower instantly.

1.3 Unserviceable Areas

.1 Mark off areas made unserviceable for aircraft by Work of this Contract by providing plainly visible danger markings by day and red lights by night. Open flames and inflammable fuels are not permitted.

.2 Park equipment not in use and stockpile materials so that stockpile tops are below 20 to 1 ratio from sides of aircraft traffic areas. Mark tops with red lights as directed by Consultant.

1.4 Trenching

.1 Obtain Consultant's written permission to undertake trenching on pavements open to aircraft traffic.

1.5 Airport Facilities

.1 Consultant will stake or inform as to the location of underground facilities such as cables, pipes and ducts, as identified by airport personnel. Notify Consultant of work areas sufficiently in advance of operations so that underground facilities can be located.

PART 1 - GENERAL

1.1 Site Visit

.1 Pre- tender site visit: Walk-through of project site prior to completion of tender submittal is mandatory. Date, time and location to be arranged by Transport Canada Project Manager.

. 2 Site visit shall be scheduled a minimum of 14 days prior to tender close.

1.2 Use of Site and Facilities

.1 Execute work with least possible interference or disturbance to normal use of premises.

.2 Maintain security measures established by existing facility.

1.3 Materials Source Separation Program

.1 Implement MSSP for waste generated on project in compliance with approved methods and as approved by Consultant.

.2 Provide on-site facilities for collection, handling, and storage of anticipated quantities of reusable and/or recyclable materials.

.3 Provide containers to deposit reusable and/or recyclable materials.

.4 Locate containers in locations, to facilitate deposit of materials without hindering daily operations.

.5 Locate separated materials in areas which minimize material damage.

.6 Collect, handle, store on-site, and transport off-site, salvaged materials. Transport to approved and authorized recycling facility.

1.4 Disposal of Wastes

.1 Burying of rubbish and waste materials is prohibited.

.2 Disposal of waste into waterways, storm, or sanitary sewers is prohibited.

1.5 Storage, Handling and Protection

.1 Store, materials to be reused, recycled and salvaged in locations as directed by Consultant.

.2 Unless specified otherwise, materials for removal become Contractor's property.

.3 Protect, stockpile, store and catalogue salvaged items.

.4 Separate non-salvageable materials from salvaged items. Transport and deliver non-salvageable items to licensed disposal facility.

.5 Protect structural components not removed for demolition from movement or damage.

.6 Support affected structures. If safety of building is endangered, cease operations and immediately notify Consultant.

.7 Protect surface drainage, mechanical and electrical from damage and blockage.

1.6 Scheduling

.1 Coordinate work with other activities at site to ensure timely and orderly progress of the work.

PART 2 - PRODUCTS

2.1 Not Used

.1 Not Used.

PART 3 - EXECUTION

3.1 Application

.1 Handle waste materials not reused, salvaged, or recycled in accordance with appropriate regulations and codes.

3.2 Cleaning

.1 Remove tools and waste materials on completion of work, and leave work area in clean and orderly condition.

.2 Clean-up work area as work progresses.

.3 Source separate materials to be reused/recycled into specified sort areas.

3.3 Diversion of Materials

.1 Separate materials from general waste stream and stockpile in separate piles or containers, to approval of Consultant, and consistent with applicable fire regulations. Mark containers or stockpile areas. Provide instruction on disposal practices.

.2 On-site sale of salvaged materials is not permitted.

.3 The following materials must be disposed of outside of the Territory of Nunavut:

.1 All Asbestos containing materials
.2 All metals including piping, sheeting and hardware.

PART 1 - GENERAL

1.1 Precedence

.1 For Federal Government projects, Division 1 Sections take precedence over technical specification sections in other Divisions of this Project Manual.

1.2 Related Sections

1.3 References

.1 Export and Import of Hazardous Waste Regulations (EIHW Regulations), SOR/92-637.

.2 National Fire Code of Canada 1995.

.3 Transportation of Dangerous Goods Act (TDG Act) 1992, (T-19.01).

.4 Transportation of Dangerous Goods Regulations (TDGR), (SOR/85-77, SOR/85-585, SOR/85-609, SOR/86-526).

1.4 Definitions

.1 Dangerous Goods: Product, substance, or organism that is specifically listed or meets the hazard criteria established in Transportation of Dangerous Goods Regulations.

.2 Hazardous Material: Product, substance, or organism that is used for its original purpose; and that is either dangerous goods or a material that may cause adverse impact to the environment or adversely affect health of persons, animals, or plant life when released into the environment.

.3 Hazardous Waste: Any hazardous material that is no longer used for its original purpose and that is intended for recycling, treatment or disposal.

.4 Workplace Hazardous Materials Information System (WHMIS): A Canada-wide system designed to give employers and workers information about hazardous materials used in the workplace. Under WHMIS, information on hazardous materials is to be provided on container labels, material safety data sheets (MSDS), and worker education programs. WHMIS is put into effect by a combination of federal and provincial laws.

1.5 Submittals

.1 Submit product data in accordance with Section 01330 - Submittal Procedures.

.2 Submit to Consultant current Material Safety Data Sheet (MSDS) for each hazardous material required prior to bringing hazardous material on site.

.3 Submit hazardous materials management plan to Consultant that identifies all hazardous materials, their use, their location, personal protective equipment requirements, and disposal arrangements.

1.6 Storage and Handling

.1 Coordinate storage of hazardous materials with Consultant and abide by internal requirements for labeling and storage of materials and wastes.

.2 Store and handle hazardous materials and wastes in accordance with applicable federal and territorial laws, regulations, codes, and guidelines.

.3 Store and handle flammable and combustible materials in accordance with current National Fire Code of Canada requirements.