

PART 1 GENERAL

1.01 REFERENCES

- .1 Canada Shipping Act, Transport Canada, 2001, amended 2013-12-01
- .2 Canadian Coast Guard Regulations, Fisheries and Oceans Canada
- .3 Canadian Environmental Assessment Act, 2012, amended 2013-11-25
- .4 Canadian Environmental Protection Act, 1999, amended on 2014-03-28
- .5 Fisheries Act, 1985, Fisheries and Oceans Canada, amended 2013-11-25
- .6 Migratory Birds Convention Act, 1994, Environment Canada, amended 2010-12-10
- .7 Navigation Protection Act, 1985. Transport Canada, amended 2014-04-01
- .8 Nova Scotia - Environment Act
- .9 Species at Risk Act, 2002, amended 2013-03-08
- .10 The Federal Policy on Wetland Conservation, 1991, Environment Canada
- .11 Transportation of Dangerous Goods Act, 1992, Transport Canada, amended 2009-06-16
- .12 Workplace Hazardous Materials Information System, Health Canada.

1.02 DEFINITIONS

- .1 Bufferzone: a vegetated land that protects watercourses from adjacent land uses. It refers to the land adjacent to water courses, such as streams, rivers, lakes, ponds, oceans, and wetlands, including the flood plain and the transitional lands between the watercourse and the drier upland areas.
- .2 Deleterious substance: (a) any substance that, if added to any water, would degrade or alter or form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water, or (b) any water that contains a substance in such quantity or concentration, or that has been so treated,

processed or changed, by heat or other means, from a natural state that it would, if added to any other water, degrade or alter of form part of a process of degradation or alteration of the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or to the use by man of fish that frequent that water.

.3 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.

.4 Navigable water: a canal and any other body of water created or altered as a result of the construction of any work.

.5 Surface water course: refers to the bed and shore of a river, stream, lake, creek, pond, marsh, estuary or saltwater body that contains water for at least part of each year.

.6 Wetlands: land where the water table is at, near or above the surface or which is saturated for a long enough period to promote such features as wet altered soils and water tolerant vegetation. Wetlands include organic wetlands or "peatlands," and mineral wetlands or mineral soil areas that are influenced by excess water but produce little or no peat.

1.03 TRANSPORTATION

.1 Transport hazardous materials and hazardous waste in compliance with the Transportation of Dangerous Goods Act.

.2 Eliminate freeboard spillage when excavating, loading and hauling excavated material.

.3 Secure contents against spillage. Avoid potential release of contents and of any foreign matter on to highways, roads and access routes used for the work. Immediately clean any ground spills and soils to extent as directed by authority having jurisdiction.

.4 Prior to commencement of work, advise and seek approval from the Departmental Representative of the existing roads and

temporary routes/roads proposed to be used to access work areas and to haul material to and from the site.

1.04 OPERATION OF MACHINERY

.1 Ensure that machinery arrives onsite in a clean condition and is maintained free of fluid leaks, invasive species and noxious weeds.

.2 Wash, refuel and service machinery and store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering the water.

.3 Machinery and equipment will remain in designated areas (e.g., helicopter landing pad, existing walkways, designated staging areas) to limit disturbance to the surrounding environment.

.4 Machinery, equipment, and potential contaminants are to be stored in a designated containment area.

1.05 CONTAINMENT AND SPILL MANAGEMENT

.1 Comply with Federal (CEPA *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations*) and Provincial regulations, codes, standards and guidelines for the storage of fuel and allied petroleum products on site.

.2 Do not dump petroleum products or any other deleterious substances on ground or in the water.

.3 Be diligent and take all necessary precautions to avoid spills and contaminate the soil and water (both surface and subsurface) when handling petroleum products on site and during fueling and servicing of vehicles and equipment.

.4 Maintain on site appropriate emergency spill response equipment consisting of at least one 250 litre (55gallon) over pack spill kit for containment and cleanup of spills. Spill equipment will include, as a minimum, a spill kit containing items to prevent a spill from spreading; absorbent booms, pillows, and mats; rubber gloves; and plastic disposal bags

.5 Maintain vehicles and equipment in good working order to prevent leaks on site.

.6 Fuel storage and refueling or lubrication of machinery or Equipment should be conducted in designated areas and at least 30 m away from a water body (where possible) such that accidental contaminant discharge will not enter surface water.

.7 Materials such as paint, primers, blasting abrasives, rust solvents, degreasers, grout, or other chemicals are not to enter any watercourse.

.8 Develop a response plan that is to be implemented immediately in the event of a spill or release of a deleterious substance.

.9 In the event of a petroleum spill, immediately notify the Departmental Representative and the Canadian Coast Guard (CCG) at 1-800-565-1633 (24 hour report line). Perform cleanup in accordance with all regulations and procedures stipulated by authority having jurisdiction.

1.06 HAZARDOUS MATERIAL HANDLING

.1 Store and handle hazardous materials in accordance with applicable federal and provincial regulations, codes, standards and guidelines. Store in location that will prevent spillage into the environment.

.2 Label containers to WHMIS requirements and keep MSDS data sheets on site for all hazardous materials.

.3 Maintain inventory of hazardous materials and hazardous waste stored on site. List items by product name, quantity and date when storage.

.4 Store and handle flammable and combustible materials in accordance with National Fire Code.

1.07 DISPOSAL OF WASTES

.1 Do not bury rubbish, construction and demolition debris (i.e., concrete, creosote timbers, steel, impacted soil materials etc.) and waste materials onsite.

.2 Construction material and debris are not to become waterborne. Any construction debris/material that enters the aquatic environment must be retrieved and removed immediately (or when it is safe to do so) and be disposed of in a provincially approved manner.

.3 Dispose and recycle construction and demolition debris and waste materials in accordance with Provincial Waste Management Regulations and the project waste management requirements specified in section 02 41 23 - Demolition and Removals

.4 Do not dispose of hazardous waste, volatile materials (such as mineral spirits, paints, thinners etc.) and petroleum products into waterways, storm or sanitary sewers or in waste landfill sites.

.5 Dispose of any hazardous waste in accordance with applicable federal and provincial, regulations, codes, standards and guidelines.

.6 There will be no concrete production on site. Concrete is to be supplied to the site in a ready mix form.

.7 Concrete waste:

.1 Do not discharge residual or rejected concrete onsite.

.2 Immediately clean any accidental release of concrete on site prior to solidification.

.3 Do not wash and clean concrete vehicles onsite.

.4 Perform dumping of residual material and truck cleaning operations only at the concrete plant. Follow

Environmental regulations and good practices as approved by the Provincial Department of the Environment and other authorities having jurisdiction.

1.08 SOIL AND WATER QUALITY

.1 For excavation of metal contaminated soil around the light tower so that repairs can be made to the subsurface concrete foundation, the Contractor must:

1. Assess weather conditions to determine the potential risk of weather on the project. Excavation work is to be scheduled to avoid periods of heavy precipitation.
2. Install erosion control structures (temporary matting, geotextile filter fabric, silt fencing), as appropriate, to prevent erosion and release of sediment and/or sediment laden water during the construction phase. These structures are to remain in place until vegetation is re-established and/or all exposed soils are stabilized.
3. Minimize run off by placing tarps under and over soil piles during temporary storage.
4. Minimize dust control during soil excavation and temporary storage.
5. Soil will only be placed in approved areas.

.2 Do not wash down equipment within a 30 metre buffer zone of a wetland, watercourse or other identified environmentally sensitive area.

.3 Water contamination by preservative treated wood:

- .1 Preservative treated lumber and timber, whether plant or site treated, shall be cured for a minimum of 30 days from date of the treatment application before their installation in areas which will be in contact with the water.
- .2 Do not cut treated wood lumber over the surface of a watercourse or wetland.
- .3 Do not use liquid applied preservative products over the surface of a watercourse or wetland.
- .4 Wood treated with Chromate Copper Arsenate (CCA) or Ammoniac Copper Zinc Arsenate (ACZA) must be CSA or American Wood Preserver Association (AWPA).

.5 Do not use timber and lumber treated with creosote, petroleum and pentachlorophenol for any part of the work.

1.09 SOCIOECONOMIC RESTRICTIONS

.1 Abide by municipal and provincial regulations for any restrictions on work performed during the night time and on flood lighting of the site. Obtain applicable permits.

.2 Work equipment and machinery must be equipped with purposely designed mufflers to reduce noise on site to lowest possible level. Maintain mufflers in good operating condition at all times.

.3 A health, safety and environment orientation will take place prior to construction for all contractors working on the site.

.4 Site access must be restricted to construction personnel and authorized visitors. Workers must be provided with appropriate personal protective equipment.

.5 All personnel involved with activities must be adequately trained and utilize appropriate personal protective equipment.

1.10 BIRD AND BIRD HABITAT

.1 Become knowledgeable with and abide by the *Migratory Birds Convention Act (MBCA)* in regards to the protection of migratory birds, their eggs, nests and their young encountered on site and in the vicinity.

.2 Minimize disturbance to all birds on site and adjacent areas during the entire course of the work.

.3 Schedule project timing such that it does not interfere with breeding, nesting, or feeding of migratory birds known to inhabit the area.

.4 Do not approach concentrations of seabirds, waterfowl and shorebirds when anchoring equipment, accessing wharves or utilizing the walkways onsite, or ferrying supplies and personnel.

.5 During night time work (if applicable), position flood lights in opposite direction of nearby bird nesting habitat.

.6 Do not use beaches, dunes and other natural previously undisturbed areas of the site to conduct work unless specifically approved by the Departmental Representative.

.7 Ensure that food scraps and garbage are not left at or near the works site.

.8 Birds and wildlife must never be fed by any personnel associate with the project.

.9 Wash, refuel and service machinery and store fuel and other hazardous materials for the machinery in such a way as to prevent any deleterious substances from contaminating birds or bird habitat.

.10 Should nests of migratory birds in wetlands be encountered during work, immediately notify Departmental Representative for directives to be followed:

.1 Do not disturb nest site and neighbouring vegetation until nesting is completed.

.2 Stop work immediately adjacent to such areas until nesting is completed.

.3 Protect these areas by following recommendations of Canadian Wildlife Service.

1.11 SPECIES AT RISK

.1 Become knowledgeable with and abide by *Species at Risk Act* (SARA) in regards to the protection of species at risk and their critical habitat.

.2 Become knowledgeable with and abide by *Species at Risk* recovery plan for the Roseate Tern and Harlequin Duck in regards to the protection of these species at risk and their critical habitat.

.3 Sensitive habitats (i.e. any area in which plant or animal life or their habitats are either rare or especially valuable) must not be accessed nor used as staging areas.

.4 Be aware that Harlequin Ducks may be located in the waters around the island, work will stop until they move away from the area.

.5 Protect identified species at risk by following any recommendations or restrictions suggested by Environment Canada Canadian Wildlife Service.

.6 All aspects of project delivery shall be in such a manner that it does not interfere with breeding, nesting, and feeding of species at risk known to inhabit the area.

1.12 AIR QUALITY AND NOISE

.1 Keep airborne dust and dirt resulting from the work onsite to an absolute minimum.

.2 Construction activities will take place in designated construction areas only and must be carried out during times acceptable to local authorities and smaller, less disturbing equipment will be used where possible.

.3 All vessels and machinery should be well muffled and maintained in proper working order.

1.13 FIRES

.1 Fires and burning of rubbish onsite is not permitted.

1.14 ARCHAEOLOGICAL

.1 All construction personnel are responsible for reporting any unusual materials discovered during construction to the construction supervisor. If the find is believed to be an archaeological resource, the construction supervisor will immediately stop work in the vicinity of the find and notify his/ her immediate supervisor.

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.2 If an archaeological and/or historically significant item is discovered during the work activities, work in the area will be stopped immediately and the Departmental Representative will be contacted as well as the provincial Archaeological Services unit.

PART 2 PRODUCTS

2.01 NOT USED

.1 Not used.

PART 3 EXECUTION

3.01 NOT USED

.1 Not used.

END OF SECTION