

PART 1 - GENERAL

1.1 Documents
Required

- .1 Maintain at job site, one copy of each of the following:
 - .1 Contract drawings
 - .2 Specifications
 - .3 Addenda
 - .4 Reviewed shop drawings/submissions
 - .5 Change orders
 - .6 Other modifications to Contract
 - .7 Field test reports
 - .8 Copy of approved work schedule
 - .9 Manufacturer's installation and application instructions.

1.2 Site Conditions

- .1 Records of existing structures and geotechnical reports may be available for inspection at the offices of Public Works and Government Services Canada, 1713 Bedford Row, Halifax, N.S. This material is not necessarily up to date and is for information purposes only. It should be complemented by site visits and consultation with appropriate expertise.

1.3 Work Schedule
and Completion Dates

- .1 Prepare and submit to the Departmental Representative within (5) days of notification of Contract Award, (one) copy of the construction schedule in the form of a bar chart showing the dates for commencement and completion of each major activity of the work, including the work of subcontractors; dates for submissions, review and return of shop drawings, etc.; the dates of Substantial and Final Completion; and intended man hours of labour and equipment for each major item of work. If the schedule as submitted is unacceptable in any way, submit without delay a revised schedule satisfactory to the Departmental Representative.
- .2 The Departmental Representative is to notify the Contractor in writing of acceptance of the Construction Schedule. Comply with the Construction Schedule at all times. If, for any reason, the Construction Schedule is not followed, immediately notify the Departmental Representative of the change and submit a revised schedule for acceptance. Upon written acceptance by the Departmental Representative, this schedule will become the Construction Schedule.
- .3 Whenever required, give further written particulars concerning this schedule. The submission to and acceptance by the Departmental Representative Contractor's Construction Schedule or the furnishing of details and particulars thereto will not relieve the Contractor of any duties and responsibilities under the Contract.

1.4 Measurement
Responsibilities

- .1 Notify Departmental Representative sufficiently in advance of operations to permit required measurements for payment purposes.

1.5 Contractor's
Use of Site

- .1 Co-operate with the Harbour Authority and users of existing facilities. All work taking place will be co-ordinated and agreed to so that there will be minimal impact to the daily ongoing activities of the harbour.
- .2 Should interference's occur, take directions from Departmental Representative.
- .3 Do not unreasonably encumber site with materials or equipment.
- .4 Move stored products or equipment which interfere with operations of Departmental Representative or other Contractors.
- .5 Obtain and pay for use of additional storage or work areas needed for operations.
- .6 Comply with all regulations and authorities having jurisdiction over the work, whether on land or on water.
- .7 Ensure no damage occurs to existing structures as a result of operations. Any said damage will be repaired at Contractor's expense.
- .8 Provide temporary barriers and warning signs in location where work is adjacent to areas used by public.

1.6 Codes and
Standards

- .1 Perform work in accordance with National Building Code of Canada (NBC) and any other code of provincial or local application provided that in any case of conflict or discrepancy, the more stringent requirements will apply.
- .2 Meet or exceed requirements of specified standards, codes and referenced documents. When a standard or code is outdated, the latest edition will supersede the referenced date.
- .3 Observe and enforce construction safety measures by Canadian Construction Safety Code and Construction Safety Code of Nova Scotia. In the event of conflict between any provisions of above authorities the most stringent provision will apply.

1.7 Project
Meetings

- .1 Departmental Representative will arrange project meetings and assume responsibility for setting times and recording and distributing minutes.

1.8 Setting Out Of
Work

- .1 Do all detail surveys necessary for the work, including locating and maintaining working points, and establishing lines and elevations. Perform all layout work, and carefully preserve benchmarks, reference points and stakes.
- .2 Provide such masts, scaffolds, batter boards, lines, straight edges, templates and other devices as may be necessary to facilitate layout, construction and inspection of the work. Whenever necessary, suspend work for such reasonable time as may be necessary to permit the Departmental Representative to check or inspect any portion of the Work. The Contractor will not be allowed any extra compensation or time for completion because of this suspension of work.
- .3 Elevations for the various grades and features of the specified works to be referenced and properly related to a benchmark, which will be approved by the Departmental Representative.
- .4 Verify all grades, lines, levels and dimensions shown on the drawings and report any errors or inconsistencies to the Departmental Representative before commencing work. Provide and maintain well built batterboards at all points to facilitate the progress of the work. Establish all other grades, lines, levels required to facilitate the work.

1.9 Existing
Services

- .1 Where work involves breaking into or connecting to existing services, carry out work at times directed by governing authorities, with minimum of disturbance to pedestrian and vehicular traffic.
- .2 Before commencing work, establish location and extent of service lines in area of work and notify Departmental Representative of findings.
- .3 Submit schedule to and obtain acceptance from Departmental Representative for any shut-down or closure of active service or facility. Adhere to approved schedule and provide notice to affected parties.
- .4 Where unknown services are encountered, immediately advise Departmental Representative and confirm findings in writing.

1.10 Contract
Documents

- .1 Contract Drawings:
 - .1 Departmental Representative may furnish additional drawings to assist in proper execution of work. These drawings will be issued for clarification only. Such drawings will have same meaning and intent as if they were included with plans referred to in Contract Documents.

1.10 Contract
Documents
(Cont'd)

- .1 (Cont'd)
 - .2 The drawings indicate the extent and general dimensions of the work. Make all necessary measurements to ensure that the result of the work is in accordance with the intent.
 - .3 Verify all existing conditions in field prior to proceeding with work.
- .2 Contract Specification:
 - .1 The general requirements & technical specifications are written solely for the General Contractor. They are organized into the NMS format of separate divisions & sections.
 - .2 Specification language is of the 'Short Form type' for example, where the word "provide" occurs, interpret it to mean "the contractor shall furnish all labour, material and equipment necessary to complete the work".
 - .3 This specification and accompanying drawings are intended to describe and provide for a finished project. They are intended to be complementary and what is called for by either will be as binding as if called for by both. The Contractor shall understand that the work herein described will be complete in every detail, notwithstanding that every item necessarily involved is not particularly mentioned, and Contractor will be held to provide all labour, materials and equipment necessary for the entire completion of the work and will not avail himself of any errors or omissions.

1.11 Permits and
Regulations

- .1 Apply for, obtain and pay for all necessary, permits, approvals and other authorization required for the work.
- .2 Comply with all by-laws, ordinances and regulations of all authorities having jurisdiction.
- .3 Pay for any Municipal permits as stated in the contract.

1.12 Cutting,
Fitting and Patching

- .1 Execute cutting (including excavation), fitting and patching required to make work fit properly.
- .2 Make cuts with clean, true, smooth edges. Make patches inconspicuous in final assembly.
- .3 Where new work connects with existing and where existing work is altered, cut, patch and make good to match existing work.
- .4 Obtain Departmental Representative's approval before cutting, boring or sleeving, or excavating adjacent to load-bearing members.

- 1.13 Record of Construction
- .1 As work progresses, maintain accurate records to show all deviations from the contract drawings, with particular reference to work which will be concealed. Prior to the inspection of the work for the issuance of the Final Certificate of Completion, provide the Departmental Representative with one set of white prints of the drawings with all deviations shown neatly thereon.
 - .2 Provide "as built" cross sections of any excavation, dredging or fill work.

- 1.14 Payment
- .1 Payment for all work under this contract to be according to Section 01 29 00 - Project Particulars and Measurements.
 - .2 No separate payment will be made for work specified under any sections of Specification under Division 01. The cost of this work is to be considered as overhead and to be included in the unit prices of the Contract. Exceptions are Departmental Representative's Site Office and Mobilization/Demobilization if shown separately in Unit Price Table.
 - .3 Dimensional changes as directed by the Departmental Representative to suit existing conditions, but not resulting in additional work or materials, will not be considered as extra to the Contract.

- 1.15 Site Assessment
- .1 All parties tendering should visit the site of the work prior to submission of tenders and make themselves thoroughly acquainted with the site conditions, conditions of the existing objects to be removed, tides degree of exposure and all information necessary for the proper carrying out of the work covered by the drawings and this specification. Submission of tender will be deemed that the contractor is conversant with site conditions.
 - .2 The Departmental Representative will give no consideration whatsoever to any claim by the Contractor resulting from failure to have made all necessary investigations prior to tendering.

- 1.16 Maintenance of Shipping
- .1 Liaise with the local port officials to coordinate activities such that any interference is minimized.

- 1.17 Cooperation & assistance to Departmental Representative
- .1 Co-operate with Departmental Representative on inspection of work.
 - .2 Provide assistance when requested.
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<u>1.17 Cooperation & assistance to Departmental Representative (Cont'd)</u>	.3	Provide small motor boat with operator for Departmental Representative's use when requested.
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<u>1.18 Datum</u>	.1	The datum referred to in the Specification is Chart Datum. Chart Datum is, by International Agreement a plane below which the tide will seldom fall. The Canadian Hydrographic Service has adopted the plane of the lowest normal tide (L.N.T.) as Chart Datum. As the rise, fall, and range of tides varies daily, the Canadian Tide and Current Tables, as issued by the Canadian Hydrographic Service, should be consulted for tidal predictions and other tidal information relating to the work.
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<u>1.19 Contractor's Representative</u>	.1	Continuously maintain on the site an authorized representative to whom communication may be addressed and who will be competent to speak for the Contractor in discussing work methods.
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<u>1.20 Workers Compensation</u>	.1	Contractor and all sub-contractors must be registered under the Workers Compensation Act and provide evidence of good standing.
	.2	At completion of Contract and before final payment is made, the Contractor will present to the Departmental Representative a Letter of Certification from the Workers Compensation Board, showing that all required assessments are paid in connection with all trades.

<u>1.21 Laws, Standards Taxes and Fees</u>	.1	Comply with all laws and standards governing all or any part of the work, pay all applicable taxes and pay for all permits and certificates required in respect of the execution of the work. Where variances exist between the requirements of agencies governing all or any part of the work, the most restrictive will govern, but in no instance will the standards established by the drawings and this Specification, which exceed such requirements, be reduced.
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<u>1.22 Protection and Repair</u>	.1	Repair any damage resulting from operations under this contract.
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<u>1.23 Location of Equipment and Fixtures</u>	.1	Location of equipment, fixtures or any appurtenances indicated are to be considered approximate.
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- 1.24 Inspection and Testing
- .1 The Departmental Representative may employ an Inspector and/or Testing Company to ensure work conforms with contract.
- 1.25 Disposal of Debris
- .1 Debris, including construction materials not incorporated in the work, oil products and containers, and other materials of this nature will be disposed of in suitable locations off the site. Disposal is the responsibility of the Contractor.
- .2 Material from the work will not be permitted to go adrift or otherwise become a menace to navigation.
- 1.26 Existing Soil Conditions
- .1 Any information pertaining to soils and all boreholes logs are furnished by the Departmental Representative as a matter of general information only and a borehole descriptions or logs are not to be interpreted as descriptive of conditions at locations other than those described by the boreholes themselves.
- 1.27 Relics and Antiquities
- .1 Protect relics, antiquities, items of historical or scientific interest such as cornerstones and contents, commemorative plaques, inscribed tablets, and similar objects found during course of work.
- .2 Give immediate notice to Departmental Representative and await written instructions before proceeding with work in this area.
- .3 Relics, antiquities and items of historical or scientific interest remain her Majesty's property.
- 1.28 Temporary Navigational Buoys
- .1 The Contractor is to maintain temporary buoy's to mark the position outer end of the structure as construction proceeds. All buoy's are to meet the requirements of Canadian Coast Guard Standard TP968-1984 and be equipped with radar reflectors.
- .2 The Contractor shall coordinate the buoy installation with local authorities.
- .3 The Contractor is responsible for all costs associated with the supply, installation and removal of all temporary navigational buoy's.

PART 2 - PRODUCTS

- 2.1 NOT USED
- .1 Not used.

PART 3 - EXECUTION

3.1 NOT USED .1 Not used.

PROJECT PARTICULARS

1.1 DESCRIPTION OF WORK

- .1 The work under this contract involves the construction of marginal wharf including reinforced concrete pile caps/deck, treated timber sheathing, ladders, rip rap and approved type I & type II materials.
- .2 The contractor is responsible to coordinate their work with the local Harbour Authority including fishers.
- .3 The work includes but is not limited to:
 - .1 Mobilization and demobilization
 - .2 Site work/demo/removals
 - .3 Excavated material removed from site
 - .4 Excavation/stock pile/reinstatement
 - .5 Load, supply & installation of reinforced concrete pile caps.
 - .6 Load, supply & installation of reinforced concrete deck and wheel guards.
 - .7 Load, supply & installation of reinforced concrete curtain wall and retaining wall.
 - .8 Load, supply & installation of treated timber wales.
 - .9 Load, supply & installation of treated timber sheathing 100x150.
 - .10 Load, supply & installation of treated timber ladder.
 - .11 Load, supply & installation of approved core stone (Short Rock).
 - .12 Load, supply & installation of approved type I gravels.
 - .13 Load, supply & installation of approved type II gravels.
 - .14 Load, supply & installation of approved rip rap.
 - .15 Remove and relocate SDR 35 drain and install of new catch basin.
 - .16 Supply of new SDR 35 drain.
 - .17 Reinstallation of 3 cleats.
 - .18 Supply & installation of 1 New Cleat.
 - .19 Reinstallation of light poles, lights and wiring plus water piping & valves. Replace damaged items as required.

PROJECT MEASUREMENT

2.1 GENERAL

- .1 This section details the measurement method to be used for payment purposes. Incidental items covered in the various sections of the Specification are to be allowed for in the pricing of each pay item.

2.2 MEASUREMENT FOR

- .1 Division 1

2.2 MEASUREMENT FOR .1
PAYMENT
(Cont'd)

- (Cont'd)
- .1 Mobilization and demobilization: Lump Sum Price which includes the supply of a Departmental Representative Site trailer, all costs associates with moving equipment personnel and materials to sit, the removal of all materials and equipment from site and the clean up of the site to conditions previous to construction.
 - .2 Site work/demo/removals: Lump Sum Price which includes all work, demolition, removals and safe storage of removals which are to be re-installed.
 - .3 Excavated material removed from site: Unit Price is based on Cubic Meter Truck Measure for all excavated material removed from site and hauled to Murphy's Pond SCH Facility, Port Hood, NS.
 - .4 Excavation/stock pile/reinstatement: Lump Sum Price for all excavation, stock piling and re-instatement of granular materials including rip rap. Material to be stored to prevent mixing of sizes.
 - .5 Load, supply & installation of reinforced concrete pile caps: Unit Price based on Cubic Meter calculated volume of concrete placed.
 - .6 Load, supply & installation of reinforced concrete deck and wheel guards: Unit Price based on Cubic Meter calculated volume of concrete placed.
 - .7 Load, supply & installation of reinforced concrete curtain wall and retaining walls: Unit Price based on Cubic Meter calculated volume of concrete placed.
 - .8 Load, supply & installation of treated timber wales: Unit Price based on Cubic Meter calculated on dimensional values.
 - .9 Load, supply & installation of treated timber sheathing 100x150: Unit Price based on Cubic Meter calculated on dimensional values.
 - .10 Load, supply & installation of treated timber ladder: Unit priced based on quantity installed.
 - .11 Load, supply & installation of approve core stone (shot rock)" Unit Priced based on Cubic Meter Truck Measure.
 - .12 Load, supply & installation of approved type I gravel: Unit Price based on Cubic Meter Truck Measure.
 - .13 Load, supply & installation of approved type II gravel: Unit Price based on Cubic Meter Truck Measures.
 - .14 Load, supply & installation of approved rip rap: Unit Price based on Cubic Meter Truck Measure.
 - .15 Remove and relocate SDR 35 drain and install of new catch basin: Lump Sum Price for supply of materials and completion of work.
 - .16 Supply of new SDR 35 drain: Unit Price based on quantity supplied and installed.
 - .17 Reinstallation of 3 cleat: Lump Sum Price to complete work.
 - .18 Supply & installation of 1 new cleat: Lump Sum Price based on quantity supplied and installed.
 - .19 Reinstallation of light poles, lights and wiring plus water piping & valves. Replace damaged items as required: Lump Sum Price to replace damaged components and re-install equipment.

2.2 MEASUREMENT FOR PAYMENT (Cont'd)	.2	All galvanized hardware associated with the fastening of the above mentioned items should be included in the items that the work will be carried out in.
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PART 3 - EXECUTION

3.1 NOT USED	.1	Not Used.
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PART 1 - GENERAL

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| <u>1.1 General</u> | <ul style="list-style-type: none">.1 Submit to Departmental Representative, for review, shop drawings, product data, samples and other information specified..2 Until submission is reviewed, work involving relevant product may not proceed. |
| <u>1.2 Shop Drawings</u> | <ul style="list-style-type: none">.1 Drawings to be originals prepared by Contractor, Subcontractor, Supplier or Distributor, which illustrate appropriate portion of work; showing fabrication, layout, setting or erection details as specified in appropriate Sections..2 Identify details by reference to sheet and detail numbers shown on Contract Drawings..3 Maximum sheet size 34" x 40"..4 Reproduction for submissions: opaque diazo prints. |
| <u>1.3 Product Data</u> | <ul style="list-style-type: none">.1 Certain Specification Sections specify that manufacturer's standard schematic drawings, catalogue sheets, diagrams schedules, performance charts, illustrations and other standard descriptive data will be accepted in lieu of shop drawings. |
| <u>1.4 Samples</u> | <ul style="list-style-type: none">.1 Submit samples in size and quantities specified..2 Construct field samples and mock-ups at locations acceptable to Departmental Representative..3 Accepted samples will become standards of workmanship and material against which, install work will be checked on project. |
| <u>1.5 Miscellaneous Data</u> | <ul style="list-style-type: none">.1 Provide certificate, methodologies, designs and test results as required. |
| <u>1.6 Coordination of Submissions</u> | <ul style="list-style-type: none">.1 Review shop drawings, product data, samples and miscellaneous data prior to submission..2 Verify:<ul style="list-style-type: none">.1 Field measurements.2 Field Construction Criteria.3 Catalogue numbers and similar data |
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1.6 Coordination of
Submissions
(Cont'd)

- .3 Coordinate each submission with requirements of work and Contract documents. Individual submissions will not be reviewed until all related information is available.
- .4 Contractor's responsibility for errors and omissions in submission is not relieved by Departmental Representative's review of submissions.
- .5 Contractor's responsibility for deviations in submission from requirements in Contract documents is not relieved by Departmental Representative's review of submission, unless Departmental Representative gives written acceptance of specified deviations.
- .6 Notify Departmental Representative, in writing at time of submission, of deviations from requirements of Contract documents stating reasons for deviations.
- .7 After Departmental Representative's review, distribute copies.

1.7 Submission
Requirements

- .1 Schedule submissions at least(14) days before dates reviewed submissions will be needed.
- .2 Submit number of opaque diazo copies of shop drawings, product data which Contractor requires for distribution, plus (2) copies of which will be retained by Departmental Representative.
- .3 Accompany submissions with transmittal letter, in duplicate, containing:
 - .1 Date
 - .2 Project title and number
 - .3 Contractor's name and address
 - .4 Identification and quantity of each shop drawing, product data and sample submitted
 - .5 Other pertinent data
- .4 Submissions shall include:
 - .1 Data and revision dates
 - .2 Project title and number
 - .3 Name and address of:
 - .1 Contractor
 - .2 Sub-Contractor
 - .3 Supplier
 - .4 Manufacturer
 - .5 Separate detailer when pertinent
 - .4 Identification of product or material
 - .5 Relation to adjacent structure or materials
 - .6 Field dimensions, clearly identified as such
 - .7 Specification Section Number
 - .8 Applicable standards, such as CSA or CGSB numbers
 - .9 Contractor's stamp, initialed or signed, certifying review of submission, verification of field measurements and compliance with Contract documents.

1.8 Shop Drawings
Review

- .1 The review of shop drawings by the consultant is for the sole purpose of ascertaining conformance with the general concept. This review shall not mean that the consultant approves the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same and such review shall not relieve the Contractor of responsibility for errors or omissions in the shop drawings or of responsibility for meeting all requirement of the construction and contract documents. Without restricting the generality of the foregoing, the Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for coordination of the work of all sub-trades.

1.9 Other Reviews

- .1 As for shop drawings above, other reviews are for the sole purpose of ascertaining conformance with the general concept.

PART 1 - GENERAL

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| <u>1.1 Related Work</u> | <ul style="list-style-type: none">.1 Section 01 47 15 - Special Procedure on Fire Safety Requirements.2 Section 01 47 19 - Special Procedure on Lockout Requirements |
| <u>1.2 Submittals</u> | <ul style="list-style-type: none">.1 Submit to Departmental Representative copies of the following documents, including updates issued:<ul style="list-style-type: none">.1 Site Specific Health and Safety Plan.2 Building Permit, compliance certificates and other permits obtained.3 Reports or directions issued by Federal, Provincial inspectors or other Authority having jurisdiction.4 Formal Safety Inspection Reports.5 Accident or Incident Reports.6 MSDS data sheets.7 Name of person(s) designated to perform full time health and safety site supervision.8 Name of person designated as Health and Safety Coordinator..2 Medical Surveillance: Where prescribed by federal or provincial legislation and regulations, and upon request by Departmental Representative, obtain and submit certification of medical surveillance for site personnel prior to commencement of work..3 Submit other data, information and documentation upon request as stipulated elsewhere in this Section..4 Submit above documents in accordance with the submittal - general requirements specified in Section 01 33 00 |
| <u>1.3 Compliance Requirements</u> | <ul style="list-style-type: none">.1 Comply with the Occupational Health and Safety Act for the Province of Nova Scotia, and the Regulations made pursuant to the Act..2 Comply with Canada Labour Code Part II, and the Canada Occupational Safety and Health Regulations made under Part II of the Canada Labour Code..3 Observe and enforce construction safety measures provided by:<ul style="list-style-type: none">.1 1995 National Building Code of Canada, Part 8..2 Provincial Worker's Compensation Board.3 Municipal statutes and ordinances.4 In event of conflict between any provisions of above authorities the most stringent provision will apply. Should a dispute arise in determining the most stringent requirements, Departmental Representative will advise on the course of action to be followed. |

1.3 Compliance
Requirements
(Cont'd)

- .5 A copy of the Canada Labour Code Part II may be obtained by contacting: Canadian Government Publishing Public Works & Government Services Canada Ottawa, Ontario, K1A 0S9 Tel: (819) 956-4800 (1-800-635-7943) Publication No. L31-85/2000 E or F)
- .6 Maintain Workers Compensation Coverage for duration of Contract. Submit Letter of Good Standing to Departmental Representative upon request.

1.4 Responsibility

- .1 Be responsible for safety of persons and property on work site and for protection of building employees and general public circulating adjacent to work operations to extent that they may be affected by conduct of Work.
- .2 Enforce compliance by workers and other persons granted access to work site with safety requirements of Contract Documents, applicable federal, provincial, and local statutes, regulations and ordinances, and with site-specific Health and Safety Plan.

1.5 Site Control
and Access

- .1 Control work site and entry points. Grant and allow entry to only workers and other persons so authorized. Immediately stop non-authorized persons from circulating within construction areas and remove from site.
- .2 Implement procedures for granting permission to enter onto work site to all persons who require access. Procedures to include the provision of a site safety orientation session.
- .3 Delineate and isolate construction areas from other areas of site by use of appropriate means. Erect barricades, fences, hoarding and temporary lighting as required (See Section 01 56 00 for minimum type of barriers acceptable.)
- .4 Erect signage at entry points and at other strategic locations around site, clearly identifying construction area(s) as being "off limits" to non-authorized persons. Signage must be professionally made in both official languages or by use of well understood graphic symbols.
- .5 Secure site at night time (or provide security guard) as deemed necessary to protect site against entry.
- .6 Ensure persons granted access are fitted and wear appropriate personal protective equipment (PPE). Be responsible for the provision of such PPE to persons who require access to conduct work or perform inspections.

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- 1.6 Protection
- .1 Provide temporary facilities for protection and safe passage of building occupants, public pedestrians and vehicular traffic around and adjacent to work site.
 - .2 Provide safety barricades, lights and signage on work site as required to provide a safe working environment for workers.
 - .3 Carry out work placing emphasis on health and safety of public, building employees, site personnel and protection of the environment.
 - .4 Should unforeseen or peculiar safety related hazard or condition become evident during performance of work, immediately take measures to rectify the situation and prevent damage or harm. Advise Departmental Representative verbally and in writing.
- 1.7 Filing of Notice
- .1 File Notice of Project and other Notices with Provincial authorities prior to commencement of Work.
 - .2 Upon request, Departmental Representative will provide name and mailing address of provincial department to whom the Notice of Project must be sent.
- 1.8 Permits
- .1 Obtain building permit related to project prior to commencement of Work.
 - .2 Obtain permits, licenses and compliance certificates, at appropriate times and frequency as stipulated by authorities having jurisdiction.
 - .3 Where particular permit or compliance certificate cannot be obtained at the required stage of work, notify Departmental Representative in writing and obtain Departmental Representative's approval to proceed prior to carrying out that portion of work.
 - .4 Post all permits on site. Submit copies to Departmental Representative.
- 1.9 Hazard Assessments
- .1 Implement and carry out a health and safety hazard assessment program as part of the work. Program to include:
 - .1 Initial hazard assessment carried out immediately upon notification of contract award and prior to commencement of work.
 - .2 On-going hazard assessment performed during the progress of work identifying new or potential health risks and safety hazards not previously known. As a minimum hazard assessments shall be carried out when:
 - .1 New subtrade work, new subcontractor(s) or new workers arrive at the site to commence another portion of the work.
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1.9 Hazard
Assessments
(Cont'd)

- .1 (Cont'd)
- .2 (Cont'd)
 - .2 The scope of work has been changed by Change Order.
 - .3 Potential hazard or weakness in current health and safety practices are identified by Departmental Representative or by an authorized safety representative.
 - .3 Hazard assessments to be project and site specific, based on review of contract documents, site and weather conditions.
 - .4 Each hazard assessment to be made in writing. Keep copies of all assessments on site for duration of work. Upon request, make available to Departmental Representative for inspection.

1.10 Project/Site
Conditions

- .1 The following are known or potential project related safety hazards at site:
 - .1 Water
 - .2 Falling
- .2 Obtain from Departmental Representative, copy of MSDS Data sheets of existing hazardous materials on site or being used by Facility and Tenant personnel in the course of their operations.
- .3 Above lists shall not be construed as being complete and inclusive of safety and health hazards encountered as a result of Contractor's operations during the course of work. Include above items into the hazard assessment program specified herein.

1.11 Safety
Meetings

- .1 Prior to commencement of work attend health and safety meeting conducted by Departmental Representative. Have Contractor's foreman in attendance. Departmental Representative will advise of time and location.
- .2 Provide sitesafety orientation session to all workers and other authorized persons prior to granting them access to work site. Brief persons on site conditions and on the minimum site safety rules in force at site.
- .3 Conduct site specific occupational health and safety meetings during the entire work as follows:
 - .1 Formal meetings on a minimum monthly basis
 - .2 Informal tool box meetings on a regular basis from a predetermined schedule.
- .4 Keep workers informed of anticipated hazards, on safety practices and procedures to be followed and of other pertinent safety information related to:
 - .1 Progress of Work
 - .2 New sub-trades arriving on site and;
 - .3 Changes in site and project conditions.

1.11 Safety
Meetings
(Cont'd)

- .5 Record and post minutes of meetings. Make copies available to Departmental Representative upon request.

1.12 Health and
Safety Plan

- .1 Develop written site-specific Project Health and Safety Plan, based on hazard assessments prior to commencement of work. Submit plan to Departmental Representative within 7 calendar days of Contract Award date.
- .2 Health and Safety Plan shall contain the following three (3) parts:
 - .1 Part 1: List of individual health risks and safety hazards identified by hazard assessment(s).
 - .2 Part 2: List of specific measures to control or mitigate each hazard and risk identified in part one of Plan. Describe the engineering controls, personal protective equipment and safe work practices to be implemented and followed when performing work related to each identified hazard or risk.
 - .3 Part 3: Emergency Measures and Communications Procedures as follows:
 - .1 Emergency Measures: On Site operating procedures, evacuation measures and emergency response to be implemented in the occurrence of an accident or incident. Procedures to be specific and relevant to identified hazards. Measures to complement and be integrated with the contractors and tenants Emergency Response Plan in place at site. Obtain information on existing emergency and evacuation plans from Departmental Representative and incorporate appropriate data.
 - .4 Communication Procedures:
 - .1 List of names and telephone numbers of designated official(s), to be contacted should an incident or emergency situation occur, including the following:
 - .1 General Contractor and all Subcontractors
 - .2 Federal Provincial Departments and local emergency resources organizations, as applicable to the hazards identified and type of accident or incident which might occur, in accordance with applicable laws and regulations.
 - .2 Procedures implemented at site to communicate and share information between workers, subcontractors, and General Contractor on work activities, and in particular those which might endanger workers and Facility employees.
 - .3 List of critical construction activities to be communicated with the Facility Manager and designated tenant representative(s) which could affect facility and tenant operations, or pose a risk to the health and safety of their employees and to the general public. Develop list in consultation with the Departmental Representative.

1.12 Health and
Safety Plan
(Cont'd)

- .2 (Cont'd)
- .4 (Cont'd)
- .3 Prepare Health and Safety Plan in a three column format, addressing the three parts specified above, as follows: Column 1 Column 2 Column 3 Identified Control, Emergency Hazard Measures Measures & Implemented Procedures Communications
- .4 Develop Health and Safety Plan in collaboration with all subcontractors. Address all work and activities of subcontractors as they arrive on site. Immediately update plan and submit to Departmental Representative.
- .5 Implement, maintain and enforce compliance with requirements of the Health and Safety Plan until final completion of work and demobilization from site.
- .6 As work progresses, review and update Plan addressing additional health risks and safety hazards identified by on-going hazard assessments.
- .7 Submit revised versions of Plan to Departmental Representative.
- .8 Post a typed written copy, including all updates, of the Health and Safety Plan in a common visible location at work site.
- .9 Submission of the Health and Safety Plan and updates, to the Departmental Representative is for review and information purposes only. It's submission shall not be construed to imply approval by Departmental Representative, be interpreted as a warranty of being complete, accurate and legislative compliant and shall not relieve Contractor of his legal obligations for the provision Health and Safety on the construction Project.

1.13 Safety
Supervision and
Inspections

- .1 Designate competent person or persons to be present on site at all times during work, responsible for supervising health and safety and conducting safety inspections of work site.
 - .2 Assign responsibility, obligations and authority to such designated person(s) to stop and start work as deemed necessary for reasons of health and safety.
 - .3 Provide names of designated individuals to Departmental Representative.
 - .4 Cooperate with Health and Safety Site Coordinator responsible for the entire site or facility, should one be designated by Departmental Representative.
 - .5 Conduct regularly scheduled safety inspections of work site as follows:
-

1.13 Safety
Supervision and
Inspections
(Cont'd)

- .5 (Cont'd)
 - .1 Informal Inspections: carry out a minimum bi-weekly basis. Note deficiencies and remedial action taken in a log book or diary.
 - .2 Formal Inspections: carry out on a minimum weekly basis. Use standardized safety checklist forms. Prepare written report for each formal inspection. Document deficiencies, remedial action needed and assign responsibility for rectification to appropriate subcontractor or worker.
- .6 Distribute monthly reports to subcontractors for their pursuance. Follow-up and ensure appropriate action and corrective measures are taken.
- .7 Maintain safety inspection documentation on site. Submit copies of formal inspection reports to Departmental Representative.
- .8 All persons in Contractor's employ responsible for health and safety requirements specified in the Contract Documents to be competent in Occupational Health and Construction Safety as defined in the Provincial Occupational Health and Safety Act.

1.14 Training

- .1 Ensure that workers, subcontractors and other authorized persons granted access to site are trained and have been fully instructed, by a competent instructor on:
 - .1 Safe operation of tools and equipment.
 - .2 Proper wearing and use of personal protective equipment (PPE) as applicable to the purpose and activities to be conducted on site.
 - .3 Safe work practices and procedures to be followed during the performance of their given work tasks or function on site.
 - .4 Site Conditions and minimum site safety rules provided through site orientation sessions.
- .2 Make training records readily available for review by Departmental Representative upon request.

1.15 Minimum Site
Safety Rules

- .1 Notwithstanding the requirements to abide by federal and provincial health and safety requirements, the following safety rules shall be considered minimum requirements at the work site and obeyed by all persons granted access:
 - .1 Wear personal protective equipment (PPE) appropriate to function and task on site; the minimum requirements being hard hat, safety footwear and eye protection.
 - .2 Immediately report unsafe activities, conditions, near-miss accidents, injuries and damage.
 - .3 Maintain site in tidy condition.
 - .4 Obey warning signs and safety tags.

1.15 Minimum Site
Safety Rules
(Cont'd)

- .2 The following actions or conduct by Contractor, workers and sub-contractors will be considered as non conformance with the health and safety requirements of the contract for which a Non-Compliance Notification will be issued to the General Contractor by the Departmental Representative.
 - .1 Failure to follow the minimum site safety rules specified above.
 - .2 Negligence resulting in serious injury or major property damage.
 - .3 Deliberate non-compliance with Federal and Provincial Acts and Regulations.
 - .4 Falsification of information in Workers Compensation Reports.
 - .5 Possession of firearms on site.
 - .6 Possession of non-prescriptive illegal drugs or alcohol
 - .7 Action, or lack thereof, resulting in the issuance of Warnings, Fines or Stop Work Orders from a provincial Authority having jurisdictions.
 - .8 Violations of other specified health and safety rules and requirements as determined by Departmental Representative.
- .3 The final decision as to what constitutes a safety violation or non-compliance issue will be made by Departmental Representative.
- .4 Non-Compliance Notifications may result in disciplinary measures taken as specified under the Non-Compliance Disciplinary Measures specified elsewhere in this section.

1.16 Accident
Reporting

- .1 Investigate and report incidents and accidents as outlined in Provincial Occupational Safety and Health Act and Regulation.
- .2 Investigate and immediately report to Departmental Representative incidents and accidents which results, (or has the potential of resulting) in:
 - .1 Injuries requiring medical aid
 - .2 Property damage in excess of \$5000.00
 - .3 Interruption to building operations with potential loss to owner or client in excess of \$5000.00
 - .4 Required notification to Workers Compensation Board or other regulatory agencies as stipulated by applicable regulations.
- .3 The term "medical aid" as used in above clause shall have the same meaning as defined in the Canadian Dictionary of Safety Terms - 1987 issue, from the Canadian Society of Safety Departmental Representatives (C.S.S.E.) as follows:
 - .1 Medical Aid: any minor injury for which medical treatment was provided and the cost of which is covered by Workers' Compensation Board of the province in which the injury was incurred.

1.17 Tools and
Equipment Safety

- .1 Implement and follow a schedule tool and equipment inspection/maintenance program at work site. Regularly check tools, equipment and machinery for safe operation and perform maintenance at pre-established time and frequency intervals as recommended by manufacturer. Include subcontractors equipment as part of the inspection process.
- .2 Use standardize checklists to ensure established safety checks are stringently followed.
- .3 Immediately tag and remove items found faulty or defective off site.
- .4 Maintain written documentation on each inspection. Make available to Departmental Representative upon request.

1.18 Hazardous
Products

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS)
- .2 Keep MSDS data sheets on site. Provide copies of all data sheets to Departmental Representative upon receipt of materials on site.
- .3 Post all MSDS data sheets on site, in a common area, visible to workers.
- .4 On building renovations projects where work is adjacent to occupied areas, locate data sheets in public locations accessible to tenant employees.

1.19 Blasting

- .1 Blasting or other use of explosives is not permitted (without prior written instructions from Departmental Representative).
- .2 Do blasting operations in accordance with section - Rock Removal.

1.20 Powder
Actuated Devices

- .1 Use powder actuated fastening devices only after receipt of written permission from Departmental Representative.

1.21 Confined
Spaces

- .1 Carry out work in confined spaces in compliance with:
 - .1 Provincial Occupational Safety and Health Regulations and
 - .2 Part XI of the Regulations Respecting Occupational Safety and Health made under Part II of the Canada Labour Code.
- .2 Include hazard assessment of confined space(s) as part of the hazard assessment program.

1.21 Confined
Spaces
(Cont'd)

- .3 Provide and maintain all equipment as required for the safety and emergency evacuation of person entering and/or perform work in confined space.
- .4 Provide training to all persons entering and working in confined spaces.
- .5 Safety for Inspectors:
 - .1 Upon Departmental Representative's request, provide protective equipment and training to Departmental Representative or to other person designated by Departmental Representative for the purpose of entering the confined space(s) to conduct inspections.
 - .2 Training to be specialized instructions (beyond basic confined space entry training) to suit the specific nature and type of confined space conditions at site.
 - .3 Be responsible for the efficacy of the equipment and for the safety of such persons during their entry and occupancy in the confined space.
- .6 Develop and use "Entry Permits" for each and every entry into the confined space in accordance with Section 11.3 of Part XI of the Regulations Respecting Occupational Safety and Health made under Part II of the Canada Labour Code. Keep all entry permits on site for duration of work. Make permits available for inspection when requested by Departmental Representative.

1.22 Posting of
Documents

- .1 Post documents indicated herein and as required by Authority having jurisdiction.

1.23 Records on
Site

- .1 Maintain on site copy of safety documentation as specified in this section and other safety related reports and documents issued to or received from authorities having jurisdiction.
- .2 Make available to Departmental Representative, or authorized safety representative, for inspection upon request.

1.24 Non Compliance
Notification and
Disciplinary
Measures

- .1 Immediately address and correct health and safety violations and non-compliance issue.
- .2 In an effort to communicate the importance place by Public Works and Government Services Canada (PWGSC) of stringently maintaining health and safety on the construction site, Departmental Representative will institute on project a system of "Non-Compliance Notifications" issued to the General Contractor. The non-compliance notifications could lead to disciplinary measures imposed on the offending party and on the General Contractor depending on the frequency or severity of infractions.

1.24 Non Compliance
Notification and
Disciplinary
Measures
(Cont'd)

- .3 The system consists in the issuance of a "Non-Compliance Notification" by Departmental Representative to the General Contractor whenever a worker, subcontractor or other person, granted access to the work site violates a site safety rule, or a health and safety requirement of the Contract or is non-complaint with applicable occupational health and safety laws and regulations.
 - .1 Each non-compliance notification issued is given a rating based on a three level classification system.
 - .2 Levels are graduated and progressive to reflect:
 - .1 The seriousness of the infraction(s) as viewed by PWGSC and by the Departmental Representative and;
 - .2 The degree of disciplinary measures which will be taken by PWGSC.
- .4 The following describes the situations and disciplinary actions to be taken by Departmental Representative dependent on the rating level given to a particular Non-Compliance Notification issued:
 - .1 Non-Compliance Notification - Level 1 Rating
 - .1 Situation: occurrence of a first time infraction by a person or party on site.
 - .2 Action: verbal warning to General Contractor, documented in PWGSC project files and copy sent to the General Contractor
 - .2 Non-Compliance Notification - Level 2 Rating
 - .1 Situation:
 - .1 The second occurrence of a previous infraction by the same person or party on site or;
 - .2 Accumulations of several level one notifications for different infractions by the same person or party on site or;
 - .3 Non-action on the part of the Contractor or subcontractor to rectify non-compliance infractions previously identified in one or several level one notifications or;
 - .4 Violation or non observance of a Federal or Provincial safety Law or Regulations by subcontractor or Contractor or;
 - .5 Negligence by a person or party resulting in injury or major property damage.
 - .2 Action: written notice to General Contractor complete with an Order for immediate remedial action to be taken. Depending on the severity of the offence, Order may include the immediate removal of the offending person or party from site.
 - .3 Non-Compliance Notification - Level 3 Rating
 - .1 Situation:
 - .1 Continued and repeated non-compliance with health and safety requirements by the General Contractor or by subcontractor(s) or;

- 1.24 Non Compliance .4 (Cont'd)
- Notification and .3 (Cont'd)
- Disciplinary .2 The occurrence of a "serious accident"
- Measures on site resulting in serious bodily injury
- (Cont'd) or death.
- .2 Action:
- .1 Formal letter issued to General
- Contractor with an Order to "Immediately
- Stop Work" until so notified to proceed.
- .2 Review and possible investigation by
- Departmental Representative and other PWGSC
- officials of all the non compliance
- incidences which have occurred or of the
- serious accident.
- .3 The term "serious accident", as used
- herein, shall have the same meaning as defined
- in the Canadian Dictionary of Safety Terms -
- 1987 issue from the Canadian Society of Safety
- Departmental Representatives (C.S.S.E.)

PART 1 - GENERAL

- 1.1 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 Migratory Birds Convention Act, 1994, Environment Canada, amended 2010-12-10
 - .8 Navigation Protection Act, 1985. Transport Canada, amended 2014-04-01
 - .9 Nova Scotia - Environment Act
 - .10 Species at Risk Act, 2002, amended 2013-03-08
 - .11 The Federal Policy on Wetland Conservation, 1991, Environment Canada
 - .12 Transportation of Dangerous Goods Act, 1992, Transport Canada, amended 2009-06-16
 - .13 Workplace Hazardous Materials Information System, Health Canada.
- 1.2 Definitions
- .1 Buffer zone: a vegetated land that protects watercourses from adjacent land uses. It refers to the land adjacent to watercourses, such as streams, rivers, lakes, ponds, oceans, and wetlands, including the floodplain 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 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.
 - .3 Fish habitat: spawning grounds and any other areas, including nursery, rearing, food supply and migration areas, on which fish depend directly or indirectly in order to carry out their life processes.

- .4 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.
- .5 Invasive or alien species: refers to a species or subspecies introduced outside its normal distribution whose establishment and spread threaten ecosystems, habitats or species with economic or environmental harm.
- .6 Navigable water: a canal and any other body of water created or altered as a result of the construction of any work.
- .7 Surface watercourse: refers to the bed and shore of a river, stream, lake, creek, pond, marsh, estuary or salt-water body that contains water for at least part of each year.
- .8 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.

1.3 Transportation

- .1 Transport hazardous materials and hazardous waste in compliance with the Transportation of Dangerous Goods Act.
- .2 Eliminate free board spillage when excavating, loading and hauling excavated material.
- .3 Trucks transporting any wet excavated material will have watertight boxes.
- .4 Do not overload trucks when hauling excavated material.
- .5 Maintain trucks clean and free of mud, dirt and other foreign matter.
- .6 Secure contents against spillage. Avoid potential release of contents and of any foreign matter onto highways, roads and access routes used for the work. Immediately clean any ground spills and soils to extent as directed by authority having jurisdiction.

- .7 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.
- .8 Vessels shall be permitted safe access through the worksite at all times, and shall be assisted as necessary.
- .9 All materials and equipment used in construction must be marked in accordance with the Collision Regulations of the *Canada Shipping Act, 2001* when located on the waterway.
- .10 Advise the Canadian Coast Guard, Marine Communication and Traffic Services (MCTS) at (902) 564-7751 or toll free at 1-800-686-8676 sufficiently in advance of commencement of work or when deploying or removing site markings in order to allow for appropriate Notices to Shipping/Mariners action.

1.4 Disposal of Excavated Material

- .1 Excavated material unsuitable for reuse, will be disposed of at a designated disposal site at Murphy's Pond SCH facility, Port Hood, NS.
- .2 Water that decants from the disposed excavated material shall not enter any waterways.
- .3 Eliminate free board spillage when excavating, loading and hauling excavated material.
- .4 Do not overload trucks when hauling excavated material. Secure contents against spillage. Clean ground spills to extent as directed by authority having jurisdiction.
- .5 Place and spread excavated material at the disposal site (Murphy's Pond SCH property) in a uniform and well graded manner. Minimize height and slopes of the excavated material. Match slopes and contours of the existing surrounding terrain as much as possible.
- .6 Items such as rubber tires, bottles, cans and other debris or litter must be removed from the disposal site following regarding. Failure to remove such debris may constitute a littering offence under the Solid Waste Resource Management Regulations.
- .7 Control runoff off water containing suspended materials or other harmful substances in accordance

with requirements of all federal, provincial, and municipal authorities having jurisdiction.

- .8 Obtain approval from Departmental Representative of the proposed route to be used to haul dredged material to the disposal site.

1.5 Operation of Machinery

- .1 Ensure that machinery arrives on site in a clean condition and is maintained free of fluid leaks, invasive species and noxious weeds.
- .2 Whenever possible, operate machinery on land above the high water mark, on ice, or from a floating barge in a manner that minimizes disturbance to the banks and bed of the water body.
- .3 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.

1.6 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 (55 gallon) overpack spill kit for containment and cleanup of spills.
- .5 Maintain vehicles and equipment in good working order to prevent leaks on site.
- .6 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 clean-up in accordance with all regulations and procedures stipulated by authority having jurisdiction.

- .7 Materials such as paint, primers, blasting abrasives, rust solvents, degreasers, grout, or other chemicals are not to enter the watercourse.
- .8 Develop a response plan that is to be implemented immediately in the event of a sediment release or spill of a deleterious substance.

1.7 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.

1.8 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 on site.
- .2 Construction material and debris are not allowed to become waterborne.
- .3 No person shall permit any tools, equipment, vehicles, temporary structures or parts thereof used or maintained for the purpose of building or placing a work in a navigable water to remain in such water after the completion of the project.
- .4 All work(s) and associated equipment shall be removed from the waterway at Contractor's expense in the event the operation of the work(s) is terminated.
- .5 Dispose and recycle construction and demolition debris and waste materials in accordance with Provincial Waste Management Regulations and the project waste management requirements specified.
- .6 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.

- .7 Dispose of hazardous waste in accordance with applicable federal and provincial, regulations, codes, standards and guidelines.
- .8 Concrete waste:
 - .1 Do not discharge residual or rejected concrete on site.
 - .2 Immediately clean any accidental release of concrete on site prior to solidification.
 - .3 Do not wash and clean concrete vehicles on site.
 - .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.

1.9 Water Quality

- .1 Conduct any excavation work in such a manner to limit turbidity and reduce sediment suspension in the water to an absolute minimum at all times.
 - .1 Maintain appropriate production speed and momentum of the excavation equipment. Make adjustments as required and as approved by Departmental Representative.
 - .2 Strategically position excavator equipment and haul vehicles to avoid over the water swings of excavated material whenever possible.
 - .3 Restrict the amount of material excavated to the work area.
 - .4 Avoid bottom stockpiling, dragging or side casting material during excavation.
 - a) If these activities are being proposed, the Contractor must:
 - i.) employ suitable operational and engineering controls (e.g., silt curtain), as approved by the Departmental Representative, around the work area, or
 - ii) hire a qualified professional to develop a Water Quality Monitoring (WQM) program for the site. The Contractor will not be permitted to start any in-water work until the WQM program is approved by the Departmental Representative. The WQM program will require direct-read turbidity measurements from a data-logger as well as collection of water samples for Total Suspended Solids (TSS) for off-site analysis in a certified laboratory. The WQM program will include a suitable number

of fixed collection points from which data shall be collected prior to any in-water work activities to establish background levels of turbidity and TSS. A collection point must also be established for the collection of data within 30 meters of the work area while equipment is operating. If the turbidity and TSS results at any of the collection points exceed the CCME Water Quality Guidelines for the Protection of Aquatic Life, the Contractor shall cease work immediately and a DFO Fisheries Protection Program (FPP) Biologist, Jean-Francois Mallet must be contacted at 506-851-2913 to determine what adaptive measures shall be employed including additional operational and engineering controls (e.g. silt curtains).

- .2 Visual monitoring of the turbidity will be required in the vicinity of the project to ensure that the turbidity is limited. If excessive change occurs in the turbidity that differs from the existing conditions of the surrounding water body (i.e., distinct colour difference) as a result of the project activities, the work will stop and the Area Habitat Coordinator of the Department of Fisheries and Oceans - Habitat Management Division will be contacted to determine if additional mitigation measures are required.
- .3 Where work may affect the water quality adjacent to water intake lines used by lobster holding facilities, fish processing facilities and other harbour users, schedule work in cooperation with the Harbour Authority as directed by Departmental Representative to minimize interference and impact to harbour users.
- .4 Do not wash down equipment within a 30 metre buffer zone of a wetland, watercourse or other identified environmentally sensitive area.
- .5 Where required, install effective sediment control measures before starting work to prevent the entry or re-suspension of sediment in the water body. Inspect sediment control measures regularly to ensure they are functioning properly, and make all necessary repairs if any damage occurs. Upon

completion of use, remove these control measures in a way that prevents the escape of settled sediment.

- .6 Develop and implement an Erosion and Sediment Control Plan for the site that minimizes risk of sedimentation of the water body during all phases of the work. Erosion and sediment control measures should be maintained until all disturbed ground has been permanently stabilized, suspended sediment has resettled to the bed of the water body or settling basin and runoff water is clear. The plan should, where applicable, include:
- a) Installation of effective erosion and sediment control measures before starting work to prevent sediment from entering the water body.
 - b) Measures for managing water flowing onto the site, as well as water being pumped / diverted from the site such that sediment is filtered out prior to the water entering a water body. For example, pumping / diversion of water to a vegetated area, construction of a settling basin or other filtration system.
 - c) Site isolation measures (e.g., silt boom or silt curtain) for containing suspended sediment where in-water work is required (e.g., construction, underwater cable installation).
 - d) Measures for containing and stabilizing waste material (e.g., excavated material, construction waste and materials, commercial logging waste, uprooted or cut aquatic plants, accumulated debris) above the high water mark of nearby water bodies to prevent re-entry.
 - e) Regular inspection and maintenance of erosion and sediment control measures and structures during the course of the work.
 - f) Repairs to erosion and sediment control measures and structures if damage occurs.
 - g) Removal of non-biodegradable erosion and sediment control materials once site is stabilized.
- .7 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)

1.10 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 Place flood lights in opposite direction of adjacent residential and business areas.
- .3 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.

1.11 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 Do not approach concentrations of seabirds, waterfowl and shorebirds when anchoring equipment, accessing wharves or ferrying supplies.
- .4 During night time work, position flood lights in opposite direction of nearby bird nesting habitat.
- .5 Do not use beaches, dunes and other natural previously undisturbed areas of the site to conduct work unless specifically approved by the Departmental Representative.
- .6 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 Minimize work immediately adjacent to such areas until nesting is completed.

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

1.12 Fish Protection

- .1 Avoid wet, windy and rainy periods that may increase erosion and sedimentation.
- .2 Ensure that all in-water activities, or associated in-water structures, do not interfere with fish passage, constrict the channel width, or reduce flows.
- .3 Screen any water intakes or outlet pipes to prevent entrainment or impingement of fish. Entrainment occurs when a fish is drawn into a water intake and cannot escape. Impingement occurs when an entrapped fish is held in contact with the intake screen and is unable to free itself.
- .4 Be aware of the risk for contamination of the fish habitat at the site as a result of alien species being introduced in the water.
- .5 To minimize the possibility of fish habitat contamination and the spread of aquatic invasive (alien species), all construction equipment which will be immersed into the water of a watercourse, or has the possibility of coming into contact with such water during the course of the work, must be cleaned and washed to ensure that they are free of marine growth and alien species.
 - .1 Equipment shall include boats, barges, cranes, excavators, haul trucks, pumps, pipe lines and other all miscellaneous tools and equipment previously used in a marine environment.
- .6 Cleaning and washing of equipment shall be performed immediately upon their arrival at the site and before use in or over the body of water.
- .7 Conduct cleaning and washing operations as follows:
 - .1 Scrape and remove heavy accumulation of mud and dispose appropriately.
 - .2 Wash all surfaces of equipment by use of a pressurized fresh water supply.
 - .3 Immediately follow with application of a heavy sprayed coating of undiluted vinegar or other environmentally approved cleaning agent to thoroughly remove all plant matter, animals and sediments.
 - .4 Check and remove all plant, animal and sediment matter from the all bilges and filters.
 - .5 Drain standing water from equipment and let fully dry before use.

- .6 Upon removal from the water, drain standing water from equipment and let fully dry before removal off the site.
- .8 Do not perform cleaning and washdown within a 30 metre buffer zone of a wetland, watercourse or other identified environmentally sensitive area.
- .9 Record of Assurance Logbook:
 - .1 Maintain an on-going log of past and present usage and washdowns of all equipment to illustrate mitigation measures undertaken against fish habitat contamination by alien species.
 - .2 Write data in a hard cover bound logbook to include the following:
 - .1 Date and location where equipment was previously used in a watercourse or wetland;
 - .2 Type of work performed.
 - .3 Dates of wash down for each piece of equipment;
 - .4 Cleaning method and cleaning agent(s) used.
- .10 Keep Record of Assurance Logbook updated from project to project. Upon request, submit logbook to Departmental Representative for review.
- .11 Abide by requirements and recommendations from Fisheries and Oceans Canada - Fisheries Protection Program in cleaning and wash down of equipment.

1.13 Air Quality

- .1 Keep airborne dust and dirt resulting from the work on site to an absolute minimum.
- .2 Dust suppression by the application of water must be employed, when required. Apply dust control measures to roads, parking lots and work areas. The Departmental Representative shall determine locations where water is to be applied, the amount of water to be applied, and the times at which it shall be applied. Waste oil must not to be used for dust control under any circumstances.
- .3 Spray surfaces with water or other environmentally approved product. Use purposely suited equipment or machinery and apply in sufficient quantity and frequency to provide effective result and continued dust control during the entire course of the work.
- .4 Do not use oil or any other petroleum products for dust control.

- 1.14 Fires .1 Fires and burning of rubbish on site is not permitted.
- 1.15 Archaeological .1 All construction personnel are responsible for reporting any unusual materials unearthed 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.
- .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.
- a) Nova Scotia - NS Department of Communities, Culture and Heritage, Special Places Program, telephone: (902) 424-6475

END OF SECTION

PART 1 - GENERAL

1.1 Related
Requirements

- .1 Particular requirements for inspection and testing to be carried out by testing laboratory designated by Departmental Representative are specified under various sections.

1.2 Appointment and
Payment

- .1 Departmental Representative will appoint and pay for services of testing laboratory except for the following:
 - .1 Inspection and testing required by laws, ordinances, rules, regulations or order of public authorities.
 - .2 Inspection and testing performed exclusively for Contractor's convenience
 - .3 Testing, adjustment and balancing of conveying systems, mechanical and electrical equipment and systems.
 - .4 Mill tests and certificates of compliance
 - .5 Tests specified to be carried out by Contractor under the supervision of Departmental Representative.
- .2 Where tests or inspections by designated testing laboratory reveal work not in accordance with contract requirements, Contractor shall pay costs for additional tests or inspections as Departmental Representative may require to verify acceptability of corrected work.

1.3 Contractor's
REsponsibilities

- .1 Furnish labour and facilities to:
 - .1 Provide access to work to be inspected and tested
 - .2 Facilitate inspections and tests
 - .3 Make good work disturbed by inspection and tests
 - .4 Provide storage on site for laboratory's exclusive use to store equipment and cure test samples.
- .2 Notify Departmental Representative sufficiently in advance of operations to allow for assignment of laboratory personnel and scheduling of test.
- .3 Where materials are specified to be tested, deliver representative samples in required quantity to testing laboratory.
- .4 Pay costs for uncovering and making good work that is covered before required inspection or testing is completed and approved by Departmental Representative.

PART 1 - GENERAL

- | | | |
|---|----|--|
| <u>1.1 Section Includes</u> | .1 | Fire Safety Requirement |
| | .2 | Hot Work Permit |
| | .3 | Existing Fire Protection and Alarm System |
| <u>1.2 Relate Work</u> | .1 | Section 01 35 30 Health and Safety |
| | .2 | Section 01 47 19 Special Procedure on Lockout Requirements. |
| <u>1.3 References</u> | .1 | FCC No. 301-June 1982 Standard for Construction Operations. |
| | .2 | FCC No. 302-June 1982 Standard for Welding and Cutting. |
| <u>1.4 Definitions</u> | .1 | Hot Work defined as:
.1 Welding Work
.2 Cutting of materials by use of torch or other open flame devices.
.3 Grinding with equipment which produces sparks. |
| <u>1.5 Submittals</u> | .1 | Submit copy of Hot Work Procedures, to Departmental Representative for review, within (14) calendar days after contract award. |
| | .2 | Include sample of Hot Work Permit. |
| | .3 | Submit above documents in accordance with the submittal - general requirements specified in Section 01 33 00 |
| <u>1.6 Fire Safety & Hot Work Requirement</u> | .1 | Implement and follow fire safety measures during Work. Comply with following:
.1 National Fire Code, 1995
.2 Fire Protection Standards FCC 301, Standard Construction Operations and FCC 302, Standard for Welding and Cutting as issued by the Fire Protection Services of Human Resources Development Canada. Federal and Provincial Occupational Health and Safety Acts and Regulations as specified in Section 01 35 30. |
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1.6 Fire Safety &
Hot Work Requirement
(Cont'd)

- .2 In event of conflict between any provisions of above authorities the most stringent provision will apply. Should a dispute arise in determining the most stringent requirements, Departmental Representative will advise on the course of action to be followed.
- .3 FCC standards, noted above, may be viewed at the Regional Fire Protection Services' Office (previously known as the Fire Commissioner of Canada) located at 99 Wyse Road, 8th Floor, Dartmouth, NS; telephone (902) 426-6053.
- .4 Hot Work Requirements:
 - .1 Obtain Departmental Representative's written Authorization to Proceed for the performance of Hot Work on site as may be required in the course of Work.
 - .2 To obtain authorization submit to Departmental Representative for review:
 - .1 Contractor's Hot Work Procedures to be followed on site in accordance with clause 1.8 below.
 - .3 Type of work and frequency of situations which will require Hot Work.
 - .4 In most cases, Departmental Representative will issue only one written authorization covering the entire construction project and duration of work. However in some cases, depending on the nature or phasing of work, the quantity of various trades needing to perform welding and cutting onsite, or other deemed situation, Departmental Representative might designate certain portions of the work as separate entities, each entity requiring individual written authorization to proceed. Follow Departmental Representative's directives in this regard.
 - .5 Do not perform any Hot Work until receipt of Departmental Representative's written Authorization to Proceed.
 - .6 In tenant occupied facilities, coordinate performance of Hot Work with Facility Manager through the Departmental Representative. When directed perform Hot Work during non-operative hours when Facility is vacant of employees. Follow Departmental Representative's directives in this regard.

1.7 Conformance

- .1 Ensure that Hot Work Procedures, as established for project and agreed upon with Departmental Representative, are stringently followed. Enforced use and compliance by all workers.
- .2 Brief all workers and subcontractors on Hot Work Procedures and Permit system.
- .3 Failure to comply with the established hot work procedures may result in the issuance of a Non-Compliance Notification at Departmental Representative's discretion with possible disciplinary measures imposed as specified in Section 01 35 30.

1.8 Hot Work
Procedures

- .1 Develop Hot Work Procedures, to be followed when Hot Work is required as part of the work.
- .2 Describe safe work practices and sequence of activities to be followed on site by Contractor and workers to minimize the potential occurrence of a fire resulting from Hot Work.
- .3 Hot Work Procedures to include:
 - .1 Requirement to perform hazard assessment of the site or immediate work area, based on type and extent of Hot Work required, in accordance with Hazard Assessment and Safety Plan requirements. Carryout hazard assessment for each hot work event.
 - .2 Use of a Hot Work Permit system, issued by an authorized person in Contractor's employ, for each event when Hot Work is required, granting permission to carryout hot work.
 - .3 Provision of a designated person(s) to carryout a Fire Safety Watch for a minimum of (30) minutes immediately upon completion of the hot work.
 - .4 Procedures to comply with fire safety codes and standards specified herein and occupational health and safety regulations
 - .5 Generic procedures, if used, must be edited, supplemented with pertinent information and tailored to reflect specific project conditions. Clearly label as being the Hot Work Procedures applicable to this contract.
 - .6 Include within procedures the step by step process on how to prepare and issue the Hot Work Permit.
 - .7 Hot Work procedures to be in typewritten format, listing step by step procedures and worker instructions, clearly establishing and allocating responsibilities of:
 - .1 Worker(s)
 - .2 Designated person authorized to issue the Hot Work Permit
 - .3 Fire Safety Watcher
 - .4 Subcontractors and Contractor

1.9 Hot Work Permit

- .1 Develop "Hot Work Permit" form in typewritten format.
- .2 Hot Work Permit form to include, as a minimum, the following data:
 - .1 Project name and project number
 - .2 Building name, address and specific floor, room or area where hot work will be performed.
 - .3 Date when permit issued
 - .4 Description on type of hot work to be carried out
 - .5 Special precautions required, including type of fire extinguisher needed
 - .6 Name and signature of authorized person, designated by Contractor, to issue the permit
 - .7 Name of workers (clearly printed) to which the permit is being issued.

1.9 Hot Work Permit (Cont'd)

- .2 (Cont'd)
- .8 Time duration of permit (not to exceed 8 hours) indicating "Start" time & date and "Completion" time & date when Hot Work permit will be in effect.
- .9 Worker signature with date and time when hot work terminated.
- .10 Specified period of time requiring Safety Watch.
- .11 Name and signature of person designated as Fire Safety Watcher, complete with time & date when safety watch terminated, certifying that the surrounding area was under his continual watch and inspection for the minimum time period specified in Permit and commenced immediately upon the completion of Hot Work.
- .3 Industry Standard forms shall only be used if all data specified above included on form.
- .4 Each Hot Work Permit to be completed in full and signed as follows:
- .1 Authorized person issuing Permit before hot work commences;
- .2 Worker(s) upon completion of Hot Work
- .3 Fire Safety Watcher upon termination of safety watch and;
- .4 Returned to Contractor's Site Superintendent for safe keeping.

1.10 Fire Protection and Alarm Systems

- .1 Fire protection and alarm systems shall not be:
- .1 Obstructed
- .2 Shut-off, unless approved by Departmental Representative
- .3 Left inactive at the end of a working day or shift.
- .2 Do not use fire hydrants, standpipes and hose systems for purposes other than fire fighting.
- .3 Costs incurred, from the fire department, building owner (and tenants), resulting from negligently setting off false alarms will be charged to the Contractor in the form of financial progress payment reductions and holdback assessments against the Contract.

1.11 Documents on Site

- .1 Keep Hot Work Permits and Hazard assessments documentation on site for duration of Work.
- .2 Upon request, make available to Departmental Representative or to authorized safety representative for inspection.

PART 2 - PRODUCTS

2.1 NOT USED .1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED .1 Not Used.

PART 1 - GENERAL

<u>1.1 Section Includes</u>	.1	Procedures to isolate and lockout electrical facility or other equipment from energy source.
<u>1.2 Related Work</u>	.1	Section 01 35 30 Health and Safety
	.2	Section 01 47 15 Fire Safety Requirements
<u>1.3 References</u>	.1	CSA C22.1-202 - Canadian Electrical Code Part 1, Safety Standard for Electrical Installations.
	.2	CSA C22.3 No. 1-M87 (R2001) - Overhead Systems.
	.3	CSA C22.3 No. 7-94 (R2000) - Underground Systems
	.4	COSH, Canada Occupational Health and Safety Regulations made under Part II of the Canada Labour Code.
<u>1.4 Definitions</u>	.1	Electrical Facility: means any system, equipment, device, apparatus, wiring, conductor, assembly or part thereof that is used for the generation, transformation, transmission, distribution, storage, control, measurement or utilization of electrical energy, and that has an amperage and voltage that is dangerous to persons.
	.2	Guarantee of Isolation: means a guarantee by a competent person in control or in charge that a particular facility or equipment is isolated.
	.3	De-energize: in the electrical sense, that a piece of equipment is isolated and grounded, e.g. if the equipment is not grounded, it cannot be considered de-energized (DEAD).
	.4	Guarded: means that an equipment or facility is covered, shielded, fenced, enclosed, inaccessible by location, or otherwise protected in a manner that, to the extent that is reasonably practicable, will prevent or reduce danger to any person who might touch or go near such item.
	.5	Isolate: means that an electrical facility, mechanical equipment or machinery is separated or disconnected from every source of electrical, mechanical, hydraulic, pneumatic or other kind of energy that is capable of making it dangerous.

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| <u>1.4 Definitions
(Cont'd)</u> | .6 | Live/alive: means that an electrical facility produces, contains, stores or is electrically connected to a source of alternating or direct current of an amperage and voltage that is dangerous or contains any hydraulic, pneumatic or other kind of energy that is capable of making the facility dangerous to persons. |
| <u>1.5 Compliance Requirements</u> | .1 | Perform lockouts in compliance with:
.1 Canadian Electrical Code
.2 Federal and Provincial Occupational Health and Safety Acts and Regulations as specified in Section 01 35 30.
.3 Regulations and code of practice as applicable to mechanical equipment or other machinery being de-energized.
.4 Procedures specified herein. |
| | .2 | In event of conflict between any provisions of above authorities the most stringent provision will apply. Should a dispute arise in determining the most stringent requirement, Departmental Representative will advise on the course of action to be followed. |
| <u>1.6 Submittals</u> | .1 | Submit copy of proposed Lockout Procedures and sample form of lockout permit or lockout tags for review. |
| | .2 | Submit documentation within 14 calendar days of contract award. Do not proceed with work until submittal has been review by Departmental Representative. |
| | .3 | Submit above documents in accordance with the submittal - general requirements specified in Section 01 33 00. |
| | .4 | Resubmit Lockout Procedures with noted revisions as may result from Departmental Representative. |
| <u>1.7 Isolation of Existing Services</u> | .1 | Obtain Departmental Representative's written authorization prior to conducting work on an existing active, energized service or facility required as part of the work and before proceeding with lockout of such services or facility. |
| | .2 | To obtain authorization, submit to Departmental Representative following documentation:
.1 Written Request for Isolation of the service or facility and;
.2 Copy of Contractor's Lockout Procedures. |
| | .3 | Make a Request for Isolation for each event, unless directed otherwise by Departmental Representative, and as follows: |

1.7 Isolation of
Existing Services
(Cont'd)

- .3 (Cont'd)
 - .1 Fill-out standard forms in current use at the facility when so directed by Departmental Representative, or;
 - .2 Where no form exist at Facility, make request in writing identifying:
 - .1 Identification of system or equipment to be isolated, including it's location;
 - .2 Time duration, indicating Start time & date and Completion time & date when isolation will be in effect.
 - .3 Voltage of service feed to system or equipment being isolated.
 - .4 Name of person making the request.
 - .3 Document to be in typewritten format.
- .4 Do not proceed until receipt of written notification from Departmental Representative granting the Isolation Request and authorizing to proceed with the isolation of designated equipment or facility. Departmental Representative may designate other individual at the Facility as the person authorized to grant the Isolation Request.
- .5 Conduct safe, orderly shut down of equipment or facilities, de-energize and isolate power and other sources of energy and lockout items in accordance with requirement of clause 1.8 below.
- .6 Plan and schedule shut down of existing services in consultation with the Departmental Representative and the Facility Manager. Minimize impact and downtime of facility operations.
- .7 Determine in advance, as much as possible, in cooperation with the Departmental Representative, the type and frequency of situations which will require a Request for Isolation. Follow Departmental Representative's directives in this regard.
- .8 Conduct hazard assessment as part of the planning process of isolating existing equipment and facilities. Hazard Assessments to conform with requirements of Health and Safety Section 01 35 30.

1.8 Lockouts

- .1 Isolate and lockout electrical facilities, mechanical equipment and machinery from all potential energy sources prior to starting work on such items.
- .2 Develop and implement lockout procedures to be followed on site as an integral part of the work.
- .3 Use energy isolation lockout devices specifically designed and appropriate for type of facility or equipment being locked out.
- .4 Use industry standard lockout tags.
- .5 Provide appropriate safety grounding and guards as required.

1.8 Lockouts
(Cont'd)

- .6 Prepare Lockout Procedures in writing. Describe safe work practices, work functions and sequence of activities to be followed on site to safely isolate all potential energy sources and lockout/tagout facilities and equipment.
- .7 Include within procedures a system of worker request and issuance of individual lockout permit by a person, employed by Contractor, designated to be "in-charge" and being responsible for:
 - .1 Controlling issuance of permits or tags to workers.
 - .2 Determining permit duration
 - .3 Maintaining record of permits and tags issued.
 - .4 Submitting a Request for Isolation to Departmental Representative when required in accordance with Clause 1.7 above.
 - .5 Designating a Safety Watcher, when on is required based on type of work.
 - .6 Ensuring equipment or facility has been properly isolated, providing a Guarantee of Isolation to worker(s) prior to proceeding with work.
 - .7 Collecting and safekeeping lockout tags, returned by workers, as a record of the event.
- .8 Clearly establish, describe and allocate, within procedures, the responsibilities of:
 - .1 Workers
 - .2 Designated person controlling issuance of lockout tags/permits
 - .3 Safety Watcher
 - .4 Subcontractors and General Contractor.
- .9 Procedures shall meet the requirements of Codes and Regulations specified in clause 1.5 above.
- .10 Generic procedures, if used, must be edited, supplemented with pertinent information and tailored to reflect specific project conditions. Clearly label as being the procedures applicable to this contract.
 - .1 Incorporate site specific rules and procedures established by Facility Manager and in force at site. Obtain such procedures through Departmental Representative.
- .11 Procedures to be in type-written format.
- .12 Submit copy of Lockout Procedures to Departmental Representative, in accordance with submittal requirements of clause 1.6 herein, prior to commencement of work.

1.9 Conformance

- .1 Ensure that lockout procedures, as established for project on site, are stringently followed. Enforce use and compliance by all workers.
- .2 Brief all persons working on electrical facilities, mechanical and other equipment fed by an energy source on requirements of this section.

1.9 Conformance
(Cont'd)

- .3 Failure to perform lockouts in accordance with regulatory requirements or follow procedures specified herein may result in the issuance of a Non-Compliance Notification at Departmental Representative's discretion with possible disciplinary measures imposed as specified in Section 01 35 30.

1.10 Documents on
Site

- .1 Post Lockout Procedures on site in common location for viewing by workers.
- .2 Keep copies of Request for Isolation submitted to Departmental Representative and lockout permits or tags issued to workers during the course of work for full project duration.
- .3 Upon request, make such data available to Departmental Representative or to authorized safety representative for inspection.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED

- .1 Not Used.

PART 1 - GENERAL

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|-------------------------------------|--|
| <u>1.1 Access</u> | <ul style="list-style-type: none">.1 Provide and maintain adequate access to project site..2 If authorized to use existing roads or structures for access to project site, maintain such roads for duration of Contract and make good damage resulting from Contractor's use of roads. |
| <u>1.2 Contractor's Site Office</u> | <ul style="list-style-type: none">.1 Not required. Contractor to use Harbour Authority Office. Keep open at all times during the execution of the work an office where all letters, orders, notices and other communications may be received or acknowledged either by the Contractor or his authorized agent or representative. Provide a telephone in the office..2 Keep one up-to-date copy of contract documents, bulletins and other materials as specified under Section 01 00 50.3 Washroom facilities not required in the office. Provide outside sanitary facilities to approval..4 Maintain in clean condition. |
| <u>1.3 Storage Shed</u> | <ul style="list-style-type: none">.1 Provide adequate weather tight sheds with raised floors, for storage of materials, tools and equipment which are subject to damage by weather.2 Contractor to make his own arrangements for on-site storage areas. |
| <u>1.4 Sanitary Facilities</u> | <ul style="list-style-type: none">.1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances..2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition. |
| <u>1.5 Parking</u> | <ul style="list-style-type: none">.1 Contractor to make own arrangements to provide parking space for work force. |
| <u>1.6 Power</u> | <ul style="list-style-type: none">.1 Arrange, pay for and maintain temporary electrical power supply in accordance with governing regulations and ordinances..2 Install temporary facilities for power such as pole lines and cables to approval of local power supply authority. |

- 1.7 Water Supply .1 Arrange, pay for and maintain temporary water supply in accordance with governing regulations and ordinances.
- 1.8 Barricades .1 Provide and maintain sufficient barricades, fencing, notices, warning signs, light signals, etc. for the protection of adjoining property and to warn others and workmen engaged on the job of the dangers caused by the work.
- .2 Types and location of barricades, etc. to be in accordance with local regulations and to the satisfaction of Departmental Representative.
- .3 The presence of such barricades, lights, etc. shall not relieve the Contractor of the responsibility for any damages.
- 1.9 Security .1 Contractor to make his own arrangements for security of his equipment, materials, damages resulting from fire and theft.
- 1.10 Site Signs and Notices .1 Signs and notices for safety or instruction to be in English and French languages, or commonly understood graphic symbols.
- 1.11 Removal of Temporary Facilities .1 Remove temporary facilities from site when directed by Departmental Representative.
- .2 When project is closed down for a period of time, keep temporary facilities operational until no longer required by Departmental Representative.

PART 1 - GENERAL

1.1 General

- .1 Use new material and equipment unless otherwise specified.
- .2 Submit following information for any or all materials and products proposed for supply within 7 days of request by Departmental Representative.
 - .1 name and address of manufacturer
 - .2 trade name, model and catalogue number
 - .3 performance, descriptive and test data
 - .4 manufacturer's installation or application instructions
 - .5 evidence of arrangements to procure
- .3 Provide material and equipment of specified design and quality, performing to published ratings and for which replacement parts are readily available.
- .4 Use products of one manufacturer for equipment or material of same type or classification unless otherwise specified.

1.2 Manufacturers Instructions

- .1 Unless otherwise specified, comply with manufacturer's latest printed instructions for materials and installation methods.
- .2 Notify Departmental Representative in writing of any conflict between these specifications and manufacturers instructions. Departmental Representative will designate which document is to be followed.

1.3 Fastenings General

- .1 All fastenings are to be the sizes indicated on the contract plans and are to be hot dipped galvanized to CSA-G164 Latest Edition unless otherwise noted.

1.4 Delivery and Storage

- .1 Deliver, store and maintain packaged material and equipment with manufacturer's seal and labels intact.
- .2 Prevent damage, adulteration and soiling of material and equipment during delivery, handling and storage. Immediately remove rejected material and equipment from site.
- .3 Store material and equipment in accordance with supplier's instruction.

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- 1.5 Conformance
- .1 When material or equipment is specified by standard or performance specifications, upon request by Departmental Representative, obtain from manufacturer an independent testing laboratory report, stating that material or equipment meets or exceeds specified requirements.
- 1.6 Substitution
- .1 Proposals for substitution may be submitted only award of Contract. Such requests must include statements of respective costs of items originally specified and proposed substitutions.
 - .2 Proposals will be considered by Departmental Representative if:
 - .1 Products selected by tenderer from those specified, are not available or
 - .2 Delivery date of products from those specified would unduly delay completion of Contract, or
 - .3 Alternative products to those specified, which are brought to attention of, and considered by Departmental Representative as equivalent to those specified and will result in a credit to Contract amount.
 - .3 Should proposed substitution be accepted either in part or in whole, assume full responsibility and costs when substitution affects other work on project. Pay for design or drawing changes required as result of substitution.
 - .4 Amounts of all credits arising from approval of substitutions will be determined by Departmental Representative and Contract price will be reduced accordingly. No substitutions will be permitted without prior written approval of Departmental Representative.
 - .5 Owner reserves the right for acceptance or rejection of substitutions of materials.
- 1.7 Construction Equipment and Plant
- .1 On request, prove to the satisfaction of Departmental Representative that the construction equipment and plant are adequate to manufacture, transport, place and finish work to quality and production rates specified. If inadequate, replace or provide additional equipment or plant as directed.
 - .2 Maintain construction equipment and plant in good operating order.
- 1.8 Damaged and Rejected Materials
- .1 Immediately replace, repair or otherwise make good material damaged broken or defaced during construction to the satisfaction of Departmental Representative.
 - .2 Remove rejected materials from site.
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PART 2 - PRODUCTS

2.1 NOT USED .1 Not Used.

PART 3 - EXECUTION

3.1 NOT USED .1 Not Used.

PART 1 - GENERAL

- 1.1 Record Drawings
- .1 Departmental Representative will provide two sets of white prints for record drawing purposes.
 - .2 Maintain project record drawings and accurately record deviations from contract documents caused by site conditions and changes ordered by Departmental Representative.
 - .3 Mark changes in red coloured ink.
 - .4 Record following information:
 - .1 Elevations of various elements in relation to Chart Datum.
 - .2 Field changes in dimensions and details.
 - .3 Changes made by Change Order.
 - .5 At completion of project and prior to final inspection, neatly transfer notations to second set and submit both sets to Departmental Representative.

PART 1 - GENERAL

1.1 General

- .1 Conduct cleaning and disposal operations to comply with ordinances and antipollution laws.
- .2 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .3 Prevent accumulation of waste which create hazardous conditions.

1.2 Cleaning During Construction

- .1 Maintain the work, at least on a daily basis free from accumulations of waste material and debris.
- .2 Provide on-site containers for collection of waste materials, and debris.
- .3 Remove waste materials, and debris from site.
- .4 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet concrete or newly painted surfaces.

1.3 Final Cleaning

- .1 In preparation for acceptance of the project on an interim or final certificate of completion perform final cleaning.
- .2 Remove grease, dust, dirt, stains, and other foreign materials from finished surfaces.