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- 1 General .1 Scope of Work will include but shall not be limited to the provisions of all labour, material and equipment necessary to complete the electrical installation for eight floating docks at the Meteghan Wharf, Digby County, Nova Scotia, in accordance with the plans, specifications and general conditions.
- 2 Work Included .1 The work is to include but not to be limited to the following:
- .1 Construction of new timber decking installed over existing concrete floats.
 - .1 Elevation of existing gangways and ramps including all tracks, anchors, brackets, etc.
 - .2 Construction and installation of new electrical power centres on all floating docks; both timber and concrete construction.
 - .3 Construction and installation of above grade pedestal mounted junction boxes, including but not limited to the following; timber posts, plywood backboards, junction boxes, conduit, wire and cabling, connections, etc.
 - .4 Supply and installation of new, and HA supplied, submersible Cabtire (type SOOW) cabling from the existing duct bank system, suspended under side of existing gangways to new power centres on the floats. Including all supports, brackets, channel, anchors, strain relief grips etc.
 - .5 Supply and installation new circuit breakers in existing distribution panelboards.
 - .6 Installation of conduit and wire from existing distribution panelboards to existing building mounted junction boxes.
 - .7 Notification to; arrangement and coordination with the supplier / manufacturer of the existing customer submetering system for the activation and commissioning of that system.

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| <u>1 Documents Required</u> | .1 | Maintain at job site, one copy each of the following: <ul style="list-style-type: none">.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. |
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| <u>2 Site Conditions</u> | .1 | Records of existing geotechnical reports and original construction drawings maybe available for inspection at the offices of Public Works and Government Services Canada, 1713 Bedford Row, Halifax, NS. This material is not necessarily up-to-date and is for information purposes only. It should be complemented with site visits and consultation with appropriate expertise. |
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| <u>3 Work Schedule and Completion Dates</u> | .1 | Prepare and submit to the Departmental Representative with five 5 days of notification of Contract award, one copy of the construction schedule, showing the dates for commencement and completion of each major activity of the work, including the work of subcontractors; dates of submissions, review and return of all drawings, etc.; the dates of Substantial Completion; and intended man hours of labour and equipment for each major items 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 Dates of the Construction Schedule at all times. If, for any reason the Construction Schedule is |
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3 Work Schedule and .2
Completion Dates
(Cont'd)

(Cont'd)
not followed, immediately notify the
Departmental Representative of the changes 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 of the
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.

4 Measurement
Responsibilities

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

5 Contractor's Use
of Site

- .1 Co-operate with users of existing facilities.
- .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

5 Contractor's Use of Site (Cont'd)	.7	(Cont'd) 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.
6 Codes and Standards	.1	Perform work in accordance with National Building Code of Canada (NBC) 2010 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.
7 Project Meetings	.1	Departmental Representative will arrange project meetings and assume responsibility for setting times and recording and distributing minutes.
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

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- 8 Setting out of Work
(Cont'd)
- .2 (Cont'd)
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.
- 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.
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10 Contract
Documents

- .1 Contract Drawings:
 - .1 The drawings for the Work consist of all drawings listed in these "Plans And Specifications" marked "A" and any additional drawings issued at a later date by the Departmental Representative.
 - .2 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.
 - .3 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.
 - .4 Verify all existing conditions in field prior to proceeding with work.
- .2 Contract Specifications:
 - .1 The general requirements and technical specifications are written solely for the General Contractor. They are organized into the NMS format of separate divisions and 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.

11 Permits and Regulations

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

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.

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.

14 Payment

- .1 Payment for all work under this contract to be according to the "Articles of Agreement".
- .2 No separate payment will be made for work specified under General Conditions,

14	<u>Payment</u> (Cont'd)	.2	(Cont'd) Supplementary Conditions or any sections of Specification under Division 01.
		.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.
15	<u>Site Examination</u>	.1	All parties tendering should visit the site of the work prior to submission of tenders and make themselves thoroughly acquainted with site conditions, conditions of 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 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 the necessary investigations prior to tendering.
16	<u>Maintenance of Shipping</u>	.1	Liaise with the local port officials to coordinate activities such that any interference is minimized.
17	<u>Cooperation and Assistance to Departmental Representative</u>	.1	Co-operate with Departmental Representative on inspection of work.
		.2	Provide assistance when requested.
18	<u>Datum</u>	.1	Datum referred to in this 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

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|---|----|---|
| 18 Datum
<u>(Cont'd)</u> | .1 | (Cont'd)
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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| 19 Contractor's
<u>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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| 20 Workers
<u>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. |
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| 21 Laws, Standards
<u>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>22 Protection and Repair</u> | .1 | Repair any damage resulting from operations under this contract. |
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| <u>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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| <u>24 Inspection and Testing</u> | .1 | The Departmental Representative may employ an Inspector and/or Testing Company to ensure work conforms with contract. |
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| <u>25 Disposal of Debris</u> | .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. This includes costs of disposing of contaminated materials such as creosote treated timber. 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. |
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| <u>26 Existing Soils Conditions</u> | .1 | Any information pertaining to soils and all boreholes logs are furnished by the Departmental Representative as a matter of general information only and borehole descriptions or logs are not to be interpreted as descriptive of conditions at locations other than those described by the boreholes themselves. |
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| <u>27 Relics and Antiquities</u> | .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. |
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PWGSC
Meteghan Wharf
Floating Dock
Electrical Install
Digby Co., NS
PN R.074439.002

General Instructions

Section 01 10 10
Page 10
December 2014

27 Relics and
Antiquities
(Cont'd)

- .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.

PROJECT PARTICULARS

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| <u>1 Description of Work</u> | <p>.1 Scope of Work under this contract includes but shall not be limited to the provisions of all labour, material and equipment necessary to complete the electrical installation for eight floating docks at the Meteghan Wharf, Digby County, NS in accordance with the plans, specifications and general conditions.</p> <p>.2 The work is to include but not necessarily be limited:</p> <ul style="list-style-type: none">.1 Construction of new timber decking installed over existing concrete floats.<ul style="list-style-type: none">.1 Elevation of existing gangways and ramps including all tracks, anchors, brackets, etc..2 Construction and installation of new electrical power centres on all floating docks; both timber and concrete construction..3 Construction and installation of above grade pedestal mounted junction boxes, including but not limited to the following; timber posts, plywood backboards, junction boxes, conduit, wire and cabling, connections, etc..4 Supply and installation of new, and HA supplied, submersible Cabtire (type SOOW) cabling from the existing duct bank system, suspended under side of existing gangways to new power centres on the floats. Including all supports, brackets, channel, anchors, strain relief grips etc..5 Supply and installation new circuit breakers in existing distribution panelboards..6 Installation of conduit and wire from existing distribution panelboards to existing building mounted junction boxes..7 Notification to; arrangement and coordination with the supplier / manufacturer of the existing customer submetering system for the activation and commissioning of that system..8 Connection of existing electrical components and systems to temporary power distribution equipment.<ul style="list-style-type: none">.1 Generators (2).2 Distribution equipment.3 Cabling |
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|-----------------------------------|---|
| 1 Description of Work
(Cont'd) | .2 (Cont'd)
.8 (Cont'd)
.4 Conduit and wiring
.5 Fuel supply for the duration of the project.
.9 De-energization and removal of existing electrical equipment in the existing electrical room.
.10 De-energization and removal of the existing 150 kw diesel generator and all associated equipment.
.11 A new power service delivered to site via a new service pole adjacent to the existing service pole.
.12 Construction of concrete encased joint use duct banks from new service pole to new service entrance location inside the electrical room.
.13 Supply and installation of new electrical distribution equipment in the existing room.
.14 Supply and installation of a new exterior pad mounted diesel generator complete with a integral fuel tank and an exterior weatherproof housing.
.15 Conduit and wiring from new electrical distribution system to all existing electrical loads. |
| | .3 The Harbour facility will be operational during construction. The Contractor is to consult with the Harbour Authority operator to coordinate scheduling of construction activities without disrupting fishing operations. |

PROJECT MEASUREMENT

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| 2 General | .1 This section details the measurement method to be used for payment purposes. |
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3 Measurement for <u>Payment</u>	.1	The work under this contract will be measured for payment by the lump sum basis. The contractor will be requested to provide a breakdown of the lump sum items for payment.
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1 General

- .1 This section specifies general requirements and procedures for contractors submissions of shop drawings, product data and samples to Departmental Representative for review. Additional specific requirements for submissions are specified in the individual sections of these specifications.
 - .2 Number of Shop Drawings: submit sufficient copies of shop drawings which are required by the General Contractor and sub-contractors plus 3 copies which will be retained by Departmental Representative. Ensure sufficient numbers are submitted to enable one complete set to be included in each of the maintenance manuals specified in 26 05 01.
 - .3 Provide, within ten working days, in form acceptable to Departmental Representative, a schedule of all shop drawings to be submitted for project. Track all submissions.
 - .4 Do not proceed with work until relevant submissions are reviewed by Departmental Representative.
 - .5 Present shop drawings, product data, and samples in SI Metric units.
 - .6 Where items or information is not produced in SI Metric units converted values are acceptable.
 - .7 Contractor's responsibility for errors and omissions in submission is not relieved by Departmental Representative's review of submissions.
 - .8 Notify Departmental Representative, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
 - .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Departmental Representative's review of submission, unless Departmental Representative gives written acceptance of specific deviations.
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1 General
(Cont'd)

- .10 Make any changes in submissions which Departmental Representative may require consistent with Contract Documents and resubmit as directed by Departmental Representative.
- .11 Notify Departmental Representative, in writing, when resubmitting, of any revisions other than those requested by Departmental Representative.

2 Submission
Requirements

- .1 Coordinate each submission with requirements of work and Contract Documents. Individual submissions will not be reviewed until all related information is available.
- .2 Allow 7 days for Departmental Representatives review of each submission.
- .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.
- .4 Submissions shall include:
 - .1 Date and revision dates.
 - .2 Project title and number.
 - .3 Name and address of:
 - .1 Subcontractor.
 - .2 Supplier.
 - .3 Manufacturer.
 - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
 - .5 Details of appropriate portions of Work as applicable:
 - .1 Fabrication
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
 - .3 Setting or erection details.
 - .4 Capacities.
 - .5 Performance characteristics.
 - .6 Standards.

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| <u>2 Submission Requirements (Cont'd)</u> | <p>.4 Submissions shall include:(Cont'd)</p> <p>.5 (Cont'd)</p> <p>.7 Operating weight.</p> <p>.8 Wiring diagrams.</p> <p>.9 Single line and schematic diagrams.</p> <p>.10 Relationship to adjacent work.</p> |
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| <u>3 Shop Drawings</u> | <p>.1 Shop drawings: opaque diazo prints or photocopies of original drawings, or modified standard drawings provided by Contractor, to illustrate details of portions of Work, which are specific to project requirements.</p> <p>.2 Maximum sheet size: 1000 x 707 mm.</p> |
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| <u>4 Product Data</u> | <p>.1 Product data: manufacturers catalogue sheets, brochures, literature, performance charts and diagrams, used to illustrate standard manufactured products. NOTE: only full color brochures are acceptable when submitting brochures. Non or poorly legible photocopies or facsimiles of photocopies of brochures, catalogue sheets, manufacturer's literature, etc., will not be accepted and will be returned not reviewed.</p> <p>.2 Delete information not applicable to project.</p> <p>.3 Supplement standard information to provide details applicable to project.</p> <p>.4 Cross-reference product data information to applicable portions of Contract Documents.</p> |
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| <u>5 Samples</u> | <p>.1 Samples: examples of materials, equipment, quality, finishes, workmanship.</p> <p>.2 Where colour, pattern or texture is criterion, submit full range of samples.</p> <p>.3 Reviewed and accepted samples will become standard of workmanship and material against which installed work will be verified.</p> |
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6 Shop Drawings
Review

- .1 The review of shop drawings by Public Works and Government Services Canada or its authorized consultant, is for the sole purpose of ascertaining conformance with the general concept. This review shall not mean that Public Works and Government Services Canada 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 requirements 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 co-ordination of the work of all sub-trades.

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- 1 References
- .1 CSA S269.1-1975(1998), Falsework For Construction Purposes.
 - .2 CSA S269.2-M87(R1998), Access Scaffolding for Construction Purposes.
 - .3 FCC No. 301-1982 Standard for Construction Operations.
 - .4 FCC No. 302-1982 Standard for Welding and Cutting.
- 2 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 and to extent that they may be affected by conduct of Work.
 - .2 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.
- 3 General Protection
- .1 Carry out work placing maximum emphasis on safety, giving precedence to health and safety of public, building employees, site personnel and protection of the environment over cost and schedule considerations of Work.
 - .2 Provide temporary protection for safe handling of building occupants.
 - .3 Provide safety barricades and lights around work site as required to provide a safe working environment for workers and protection for pedestrian and vehicular traffic.
 - .4 Be vigilant and ensure that non-authorized persons are not allowed to circulate in designated construction areas of work site. Provide appropriate means by use of barricades, fences, warning signs and temporary lighting as required. Secure site at night time or provide security guard as deemed necessary to protect site against entry.
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4 Regulatory
Requirements

- .1 Comply with the Occupational Health and Safety Act for the Province of Nova Scotia, and the Industrial Safety Regulations made pursuant to the Act.
- .2 Comply with Canada Labour Code Part II, and Canada Occupational Safety and Health Regulations.
- .3 Observe and enforce construction safety measures required by:
 - .1 2010 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 requirement, Departmental Representative will advise on the course of action to be followed.
- .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)

5 Filing of
Notice

- .1 File all Notices with Provincial authorities prior to commencement of Work.

6 Work Permit

- .1 Obtain building permit related to project prior to commencement of Work and post on site.

7 Safety Assessments

- .1 Perform site specific safety hazard assessments related to project as specified in Health and Safety Plan.

8 Meetings

- .1 Attend health and safety pre-construction meeting as directed by Departmental Representative.
- .2 Conduct safety orientation session to all workers at commencement of work and on an as-needed basis during progress of work when new workers arrive or change in conditions or work occurs.

9 Electrical
Lock-out

- .1 Be aware that electrical Lock-out and Guarantee of Isolation procedures are mandatory at site, must be clearly established, and in place prior to carrying out any electrical work of this contract.
 - .2 Develop, implement and enforce use of established procedures to provide electrical lock-out and to ensure a Guarantee of Isolation for every event where work must be done on any electrical circuit or facility. Procedures shall meet with requirements of the Safety Acts, Codes, Regulations and Standards specified in above clause 4 - Regulatory Requirements.
 - .3 Incorporate within procedures the use of a written "Lockout Request/Guarantee" form to obtain a Guarantee of Isolation. Make use of lock-out tags and maintain a log book listing all events as part of the procedures.
 - .4 Pre-determine and designate the person or persons at the building or at construction work site who will provide and authorize the Guarantee of Isolation. Coordinate with the Departmental Representative and the Building Facility Manager in determining those designated person(s).
 - .5 Check with the Departmental Representative and the Building Maintenance Manager for any site specific or client specific lock-out rules and procedures which may have been established and in force at the site of work. Incorporate such additional procedural steps within Contractor's standard lock-out procedures.
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9 Electrical
Lock-out
(Cont'd)

- .6 Prepare the lock-out procedures in writing, listing the step by step processes to be followed by workers, including how to prepare and issue the "Lockout Request/Guarantee" form. State on the form the designated persons who will perform the electrical lockout and person(s) authorized to provide the Guarantee of Isolation. Post procedures on site, legibly typed, at a common location for viewing by all workers.
- .7 Submit a copy of the procedures reflecting the above requirements to the Departmental Representative before commencing work of this contract.
- .8 All Lockout Request/Guarantee forms and lock-out tags shall be kept at the site and listed in a log book for the full duration of Contract. Upon request, make such data available for viewing by Departmental Representative or by any authorized Safety Representative.
- .9 Ensure that all individuals working on electrical circuits and facilities have been fully briefed on the electrical lock-out procedures and are aware that they are mandatory on the work site.

10 Health and
Safety Plan

- .1 Develop written site-specific Project Health and Safety Plan prior to commencement of work. Submit plan to Departmental Representative within 14 calendar days after award of Contract.
- .2 To prepare Health and Safety Plan, conduct a site specific hazard assessment based on review of all work of Contract Documents and of work site. Identify all known and potential health risks and safety hazards.
- .3 Based on hazard assessment, prepare Project Health and Safety Plan to include the following:
 - .1 Summary of health risk and safety hazards resulting from analysis, clearly identifying those of high risk;

10 Health and
Safety Plan
(Cont'd)

- .3 (Cont'd)
- .2 List special tasks and operations which to be followed for activities or operations of high health or safety risk;
 - .3 List hazardous materials to be brought on site as required by work;
 - .4 Indicate engineering and administrative control measures to be implemented at the site for managing identified risks and hazards;
 - .5 Identify personal protective equipment to be used by workers as required to manage hazards that cannot be reasonably or practically managed by engineering and administrative controls;
 - .6 State company's Safety Policy. Provide confirmation that General Contractor and subcontractors currently have in place Standard Operating Procedures (SOP) and Safe Work Practices (SWP), representative of the work type to be undertaken and meeting provincial safety regulations; that such procedures and practices will be stringently followed and enforced during work of this contract. Maintain a copy of all SOP and SWP on site at all times for own use and provide for inspection when requested by Departmental Representative;
 - .7 List standard operating procedures and measures to be taken in emergency situations. Include an evacuation plan and emergency contacts (ie: names/telephone numbers) of:
 - .1 Designated Personnel from own company;
 - .2 Local emergency resources;
 - .3 Regulatory Agencies applicable to work and as per legislated regulations.
 - .4 List of contacts from PWGSC and Client Department as provided by Departmental Representative;
 - .8 Provide a communication plan or strategy of approved procedures to be followed on site by all workers as to how project specific construction information and Health and Safety issues must flow and be shared between Workers, Subcontractors, General Contractor, Departmental Representative, Building Manager and designated Tenant representatives. Departmental Representative will provide names of client and tenants contacts and their requirements for incorporation into the plan.

10 Health and
Safety Plan
(Cont'd)

- .4 Develop plan in collaboration with all sub-contractors. Ensure that all work and activities of sub-contractors are included in the hazard assessment and reflected within Plan.
- .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 project progresses, continually review and evaluate work and construction site. Carryout additional hazard assessments, identifying new or potential health risk and safety hazards not previously known. Immediately revise and update Project Health and Safety Plan. Notwithstanding the above, carryout additional hazard assessments and revise the Health & Safety Plan whenever:
 - .1 New subtrade work, new subcontractor(s) or new workers arrive at the site to commence another portion of the work
 - .2 The scope of work has been changed by Change Order.
 - .3 Errors or Omissions are identified by Departmental Representative or any authorized safety representative.
- .7 Post a legibly typed copy of the Health and Safety Plan in a common visible area at the work site. Ensure that all workers and other authorized persons allowed access to the construction area(s) are aware of and abide by the rules and regulations indicated in the Plan.
- .8 Post all versions to the Plan and submit an updated copy to the Departmental Representative in all instances.
- .9 Maintain copies of all hazard assessments on site for the entire duration of work. Make available to Departmental Representative for review upon request.
- .10 Submission of the Health and Safety Plan, and any revised version, to the Departmental Representative is for information and reference purposes only. It shall not be construed to imply approval by Departmental

10 Health and
Safety Plan
(Cont'd)

- .10 (Cont'd)
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.

11 Hazardous
Products

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials, and regarding labelling and provision of material safety data sheets acceptable to Labour Canada and Health and Welfare Canada.
- .2 Deliver copies of WHMIS - MSDS data sheets to Departmental Representative on delivery of materials.
- .3 All Data Sheets must be posted on site, in a common area, visible to all workers and in locations accessible to tenants employees when work of this contract includes construction activities adjacent to occupied areas.
- .4 Make all efforts to select and use materials (ie: adhesives, solvents, cleaners etc..) for the type and nature of work to be carried out which are the least hazardous products available, of low VOC content or low toxicity type products and emitting low noxious odours. Select products known to be friendly to the environment and to human health. Communicate this intent to sub-contractors, suppliers and manufacturers.
- .5 Where the use of hazardous and toxic products cannot be avoided:
.1 Advise Departmental Representative before hand of the product(s) intended for use, submit WHMIS data sheets as per clause 11.1 above.
.2 Schedule, in conjunction with the Departmental Representative, to carryout the work during "Off Hours" when tenants have left the building.
.3 Provide adequate means of ventilation in accordance with section 26 05 01.

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- 12 Fire Safety & Hot Work Requirements
- .1 Comply with Federal and Provincial fire safety regulations, including the requirements of the following standards as issued by the Fire Protective Services of Human Resource Development Canada:
 - .1 FCC 301 - Standard for Construction Operations.
 - .2 FCC 302 - Standard for Welding and Cutting.
 - .3 These standards are to be available from Transport Canada. Coordinate with PWGSC Project Manager.
 - .2 Obtain Departmental Representative's authorization before any welding, cutting or any other hot work operations can be carried out on site. Hot Work includes all cutting with use of torch or other open flame devices and grinding with equipment which produces sparks.
 - .3 To obtain Departmental Representative's authorization, Contractor shall develop, and implement use of written Hot Work Procedures and Safe Work Practices to be followed on the construction site for all hot work. Submit such procedures to Departmental Representative for review and approval.
 - .4 The Hot Work Procedures and Safe Work practices shall meet with fire safety regulations specified in clause 12.1 above and shall include the following criteria:
 - .1 Use of a Hot Work Permit system, between Contractor and each worker performing the hot work; consisting of a form to be filled out and issued for each and every hot work operation.
 - .2 Requirement for a hazard analysis to be carried out of the immediate area and on the nature and extent of the hot work required. The assessments must be done prior to and for each and every event where a Hot Work permit will be issued. Hazard analysis shall document in writing the following:
 - .1 Identified known and potential hazards,
 - .2 Protective controls and measures to be taken to minimize the risk of a fire,
 - .3 Planned emergency responses.
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12 Fire Safety & .4
Hot Work Requirements
(Cont'd)

(Cont'd)

.3 Provision of a designated person(s) to carry out fire safety watch for a minimum of 30 minutes after completion of the hot work.

- .5 Hot Work Permit Form to include, as a minimum, the following information:
- .1 Project name and project number
 - .2 Name and address of building or facility where work to be performed including specific floor or room etc.
 - .3 Description of hot work and nature of work to be carried out.
 - .4 Special precautions required, including the type of fire extinguisher needed.
 - .5 Worker(s) License or Certificate number when applicable in accordance with provincial regulations.
 - .6 Name and signature of Contractor, or his designated superintendent authorized to issue the permit, and the date when permit was prepared and issued.
 - .7 Name of worker(s) (clearly printed) to which the permit is being issued.
 - .8 Time duration when permit is in force (not to exceed 8 hours) indicating "Start" date & time and "completion" date & time.
 - .9 Worker signature with date and time when work has been completed.
 - .10 Name of fire safety watch person, with his signature, date and time at completion of safety watch, certifying that the surrounding area was under his watch and inspected for a minimum of 30 minutes immediately upon hot work completion and found to be in a fire safe condition.
- .6 The Hot Work Permit shall be completed in full before work commences, signed by the respective persons upon completion and returned to the Contractor.
- .7 Maintain Work Permits and Hazard analysis documentation on site for duration of Work. Upon request, make available for viewing by Departmental Representative and by any person authorized by Departmental Representative.
- .8 Submit copy of Contractor's Hot Work Procedures and Safe Work Practices to obtain Departmental Representative's authorization of

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- 12 Fire Safety & Hot Work Requirements (Cont'd) .8 (Cont'd)
such procedures in sufficient lead time before any hot work must to be carried out so as not to delay work.
- .9 In most cases, Departmental Representative will issue only one written authorization covering the entire construction project and duration. However in some cases, depending on the nature or phasing of work, the quantity of various trades needing to perform welding and cutting, or other deemed situation, Departmental Representative might designate certain portion of the construction work as separate entities each requiring it's own written authorization. Follow Departmental Representative's directives in this regard.
- 13 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 Fire hydrants, standpipes and hose systems shall not be used for other than fire fighting purposes.
- .3 The Contractor is liable for all costs incurred, from the fire department and the building owner and tenants, resulting from setting off false alarms.
- 14 Blasting .1 Blasting or other use of explosives is not permitted.
- 15 Powder Actuated Devices .1 Use of powder actuated fastening devices only after receipt of written permission from Departmental Representative.
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16 Overloading .1 Ensure no part of work is subjected to a load which will endanger its safety or will cause permanent deformation.

17 Falsework .1 Design and construct falsework in accordance with CSA S269.1.

18 Scaffolding .1 Design, construct and maintain scaffolding in rigid, secure and safe manner in accordance with CAN/CSA-S269.2.

.2 Erect scaffolding independent of walls.
Remove promptly when no longer required.

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| <u>1</u> <u>General</u> | <ul style="list-style-type: none">.1 Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws..2 Store volatile waste in covered metal containers, and remove from premises at end of each working day..3 Clean only those areas affected by contract work. |
|
<u>2</u> <u>Materials</u> |
<ul style="list-style-type: none">.1 Use only cleaning materials recommended by manufacturer for surface to be cleaned. |
|
<u>3</u> <u>Execution</u> |
<ul style="list-style-type: none">.1 On a daily basis, maintain premises free from debris and waste materials..2 Maintain and protect site and public properties free from accumulations of waste materials and rubbish..3 Remove waste material and rubbish from site daily. |