

1.1 DESCRIPTION OF WORK

.1 In general, work under this contract consist of cleaning, dismantling, removal and approved disposal of two above ground bunker C storage tanks and associated piping.

.2 Site of Work is at: Dorchester Penitentiary - Medium 4902 Main Street, Dorchester, New Brunswick.

The tanks are located in a below grade concrete vault (former coal storage bunker). The two tanks are field constructed rectangular steel tanks.

The Contractor is to provide a written Tank Cleaning and Dismantling Procedure for review with their bid package, including an emergency spill response procedure.

The system has been out of service for approximately 3 years. When the system was shut down, remaining bunker fuel was not removed from the tanks. Tank No. 1 contains approximately 9600 L and Tank No. 2 contains approximately 21,600 L of bunker fuel remaining.

The boiler supply and return piping and steam heat piping have previously been removed. The system heating coils are reportedly still in place, however it has not been confirmed if they are operational. If required by contractor for their proposed Tank Cleaning and Dismantling Procedure, the contractor is responsible to confirm prior to finalizing their procedure.

The bunker tanks were filled remotely through an underground, insulated, single-wall steel fill pipe. Approximately 110 m of underground fill piping (100mm) is required to be removed.

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- 1.2 FAMILIARIZATION WITH SITE .1 Before submitting a bid, it is recommended that bidders visit the site to review and verify the form, nature and extent of the work, materials needed, the means of access and the temporary facilities required to perform the Work.
- .2 Obtain prior permission from the Departmental Representative before carrying out such site inspection. Security clearance required prior to entry to site.
- 1.3 CODES AND STANDARDS .1 Perform work in accordance with the 2010 National Building Code of Canada and any other code of provincial or local application, including all amendments up to bid closing date, provided that in any case of conflict or discrepancy, the more stringent requirement shall apply.
- .2 Materials and workmanship must meet or exceed requirements of specified standards, codes and referenced documents.
- 1.4 INTERPRETATION OF DOCUMENTS .1 Supplementary to the Order of Precedence article of the General Conditions of the Contract, the Division 01 sections take precedence over the technical specification sections in other Divisions of the Specification Manual.
- 1.5 TERM ENGINEER .1 Unless specifically stated otherwise, the term Engineer where used in the Specifications and on the Drawings shall mean the Departmental Representative as defined in the General Conditions of the Contract.
- 1.6 COST BREAKDOWN .1 Before submitting first progress claim submit breakdown of Contract price in detail as

directed by Departmental Representative and aggregating contract price. Required forms will be provided for application of progress payment.

- .2 List items of work numerically following the same division/section number system of the specification manual and thereafter sub-divide into major work components and building systems as directed by Departmental Representative.
- .3 Upon approval, cost breakdown will be used as basis for progress payment.

1.7 DOCUMENTS  
REQUIRED

- .1 Maintain at job site, one copy each of the following:
  - .1 Tank Cleaning and Dismantling Procedure
  - .2 Contract Drawings
  - .3 Specifications
  - .4 Addenda
  - .5 Reviewed Shop Drawings
  - .6 List of outstanding shop drawings
  - .7 Change Orders
  - .8 Other modifications to Contract
  - .9 Field Test Reports
  - .10 Copy of Approved Work Schedule
  - .11 Health and Safety Plan and other safety related documents
  - .12 Other documents as stipulated elsewhere in the Contract Documents.

1.10 PERMITS

- .1 In accordance with the the General Conditions, obtain and pay for building permit, certificates, licenses and other permits as required by municipal, provincial and federal authorities.
- .2 Provide appropriate notifications of project to municipal and provincial inspection authorities.

- .3 Obtain compliance certificates as prescribed by legislative and regulatory provisions of municipal, provincial and federal authorities as applicable to the performance of work.
- .4 Submit to Departmental Representative, copy of application forms and approval documents received from above referenced authorities.

1.11 ALTERATIONS,  
ADDITIONS OR  
REPAIRS TO EXISTING  
BUILDING

- .1 Execute work with least possible interference or disturbance to institutional operations and normal use of premises. Arrange with Departmental Representative to facilitate execution of work.
- .2 Where security has been reduced by work of Contract, provide temporary means to maintain security.
- .3 Provide temporary dust screens, barriers, warning signs in locations where renovation and alteration work is adjacent to areas which will be operative during such work.

1.12 CUTTING,  
FITTING AND  
PATCHING

- .1 Ensure that cutting and patching required by all trades is included in total bid price submitted for the work.
- .2 Execute cutting including excavation, fitting and patching required to make work fit properly.
- .3 Where new work connects with existing and where existing work is altered, cut, patch and make good to match existing work. This includes patching of openings in existing work resulting from removal of existing services.

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- .4 Do not cut, bore, or sleeve load-bearing members, except where specifically approved by Departmental Representative.
- .5 Make cuts with clean, true, smooth edges. Make patches inconspicuous in final assembly.
- 1.16 EXISTING SERVICES
- .1 Before commencing work, establish location and extent of service lines in area of work and notify Departmental Representative of findings.
- .2 Provide adequate bridging over trenches which cross sidewalks or roads to permit normal traffic.
- .3 Where unknown services are encountered, immediately advise Departmental Representative and confirm findings in writing.
- .4 Protect, relocate and maintain existing active services. When inactive services are encountered, cap off in a manner approved by authorities having jurisdiction.
- 1.18 BUILDING SMOKING ENVIRONMENT
- .1 Comply with smoking restrictions. No smoking on site.
- 1.19 ASBESTOS DISCOVERY
- .1 Demolition of spray or trowel-applied asbestos can be hazardous to health. Should material resembling spray or trowel-applied asbestos be encountered in course of work, stop work and notify Departmental Representative immediately. Do not proceed with relevant work until written instructions have been received from Departmental Representative.

1.1 SUBMITTALS

- .1 Upon acceptance of bid and prior to commencement of work, submit to Departmental Representative the following work management documents:
  - .1 Work Schedule as specified herein.
  - .2 Shop Drawing Submittal Schedule specified in section 01 33 00.
  - .3 Environmental Plan specified in section 01 35 43.
  - .5 Health and Safety Plan specified in section 01 35 29.
  - .6 Hot Work Procedures specified in section 01 35 24.
  - .7 List of workers requiring security clearance and those to be placed on Site Security Control list as specified in section 01 35 59.

1.2 WORK SCHEDULE

- .1 Upon acceptance of bid submit:
  - .1 Preliminary work schedule within 7 calendar days of contract award.
  - .2 Detailed work schedule within 21 calendar days of contract award.
- .2 Schedule to indicate all calendar dates from commencement to completion of all work within the time stated in the accepted bid.
- .3 Provide sufficient details in schedule to clearly illustrate entire implementation plan, depicting efficient coordination of tasks and resources, to achieve completion of work on time and permit effective monitoring of work progress in relation to established milestones.
- .4 Work schedule content to include as a minimum the following:
  - .1 Bar (GANTT) Charts, indicating all work activities, tasks and other project elements, their anticipated

- durations, planned dates for achieving key activities and major project milestones supported with;
- .2 Written narrative on key elements of work illustrated in bar chart, providing sufficient details to demonstrate a reasonable implementation plan for completion of project within designated time.
  - .3 Generally Bar Charts derived from commercially available computerized project management system are preferred but not mandatory.
  - .5 Work schedule must take into consideration and reflect the work phasing, required sequence of work, special condition and operational restrictions as specified below and indicated on drawings.
  - .6 Schedule work in cooperation with the Departmental Representative. Incorporate within Detailed Work Schedule, items identified by Departmental Representative during review of preliminary schedule.
  - .7 Completed schedule shall be approved by Departmental Representative. When approved, take necessary measures to complete work within scheduled time. Do not change schedule without Departmental Representative's approval.
  - .8 Ensure that all subtrades and subcontractors are made aware of the work restraints and operational restrictions specified.
  - .9 Schedule Updates:
    - .1 Submit on a by-weekly basis when requested by Departmental Representative.
    - .2 Provide information and pertinent details explaining reasons for

- necessary changes to implementation plan.
- .3 Identify problem areas, anticipated delays, impact on schedule and proposed corrective measures to be taken.
  - .10 Departmental Representative will make interim reviews and evaluate progress of work based on approved schedule. Frequency of such reviews will be as decided by Departmental Representative. Address and take corrective measures on items identified by reviews and as directed by Departmental Representative. Update schedule accordingly.
  - .11 In every instance, change or deviation from the Work Schedule, no matter how minimal the risk or impact on safety or inconvenience to tenant or public might appear, will be subject to prior review and approval by the Departmental Representative.
- 1.3 OPERATIONAL RESTRICTIONS
- .1 The Contractor must recognize that institutional occupants will be affected by implementation of this contract. The Contractor must perform the work with utmost regard to the safety and convenience of building occupants and users. All work activities must be planned and scheduled with this in mind. The Contractor will not be permitted to disturb any portion of the building without providing temporary facilities as necessary to ensure safe and direct passage through disturbed or otherwise affected areas.
  - .2 Contractor to meet with the Departmental Representative on a weekly basis to identify intended work areas, activities

and scheduling for the coming week.

- .3 See section 01 35 59 in regards to:
  - .1 Special security requirements which must be observed in the course of work.
- .4 Limited maneuvering space on site to area on drawings. Staging area for placement of construction trailer and goods storage will be on the Institution's site, outside the security wall, in the location designated by the Departmental Representative.
- .5 Facility circulation maintained:
  - .1 Ensure that entrances, corridors, stairwells, fire exits and other circulation routes are maintained free and clear providing safe and uninterrupted passage for Facility users at all times during the entire work.
  - .2 Maintain those areas clean and free of construction materials and equipment. Provide temporary dust barriers and other suitable enclosures to ensure users are not exposed to construction activities and are protected from exposure to dust, noise and hazardous conditions.
  - .3 Provide temporary corridors, walkways, passageways, access to offices, etc... when required due to nature of work.
  - .4 Maintain fire escape routes accessible and fire fighting access open all times for the duration of the project.
  - .5 Do not under any circumstances block fire exit doors. Do not leave construction materials or debris in corridors, stairwells building entrances and exits.

- .6 Safety Signage:
  - .1 Provide onsite, and erect as required during progress of work, proper bilingual signage, mounted on self-supporting stands, warning the building occupants of construction activities in progress and alerting need to exercise caution in proceeding through disturbed areas of the facility, and directing building occupants through any detours which may be required.
  - .2 Signage to be professionally printed and mounted on wooden backing, coloured and to express messages as directed by the Departmental Representative.
  - .3 Generally maximum size of sign should be in the order of 1.0 square meters. Number of signs required will be dependent on number of areas in facility under renovation at any one time.
  - .4 Include costs for the supply and installation of these signs in the bid price.
  
- .12 Dust and Dirt Control:
  - .1 See section 01 50 00 and 01 74 11 for dust control and cleaning requirements.
  - .2 Effectively plan and implement dust control measures and cleaning activities as an integral part of all construction activities. Review all measures with the Departmental Representative before undertaking work, especially for major dust generating activities.
  - .3 Do not allow demolition debris and construction waste to accumulate on site.
  - .4 Immediately remove all debris and dust from within occupied areas as

generated by work therein during a given work shift.

- .5 Avoid situations and practices which results in dust and dirt being brought from the construction areas and tracked into occupied areas.

- .13 Ensure that all sub-trades are made aware of and abide by the contents of this section and in particularly the work restrictions specified herein due to tenant operational requirements.

#### 1.4 PROJECT MEETINGS

- .1 Schedule and administer project meetings, held on a minimum bi-weekly basis, for entire duration of work and more often when directed by Departmental Representative as deemed necessary due to progress of work or particular situation.
- .2 Prepare agenda for meetings.
- .3 Notify participants in writing 4 days in advance of meeting date.
  - .1 Ensure attendance of all subcontractors.
  - .2 Departmental Representative will provide list of other attendees to be notified.
- .4 Hold meetings at project site or where approved by Departmental Representative.
- .5 Preside at meetings and record minutes.
  - .1 Indicate significant proceedings and decisions. Identify action items by parties.
  - .2 Distribute to participants by mail or by facsimile within 3 calendar days after each meeting.
  - .3 Make revisions as directed by Departmental Representative.
  - .4 Departmental Representative will advise whether submission of minutes

by Email is acceptable. Decision will be based on compatibility of software among participants.

1.5 WORK  
COORDINATION

- .1 The General Contractor is responsible for coordinating the work of the various trades and predetermining where the work of such trades interfaces with each other.
  - .1 Designate one person from own employ having overall responsibility to review contract documents and shop drawings, plan and manage such coordination.
  - .2 The General Contractor shall convene meetings between trades whose work interfaces and ensure that they are fully aware of the areas and the extent of where interfacing is required.
    - .1 Provide each trade with the plans and specs of the interfacing trade, as required, to assist them in planning and carrying out their respective work.
  - .3 Submission of shop drawings and ordering of prefabricated equipment or prebuilt components shall only occur once coordination meeting for such items has taken place between trades and all conditions affecting the work of the interfacing trades has been made known and accounted for.
  - .4 Work Cooperation:
    - .1 Ensure cooperation between trades in order to facilitate the general progress of the work and avoid situations of spatial interference.
    - .2 Ensure that each trade provides all other trades reasonable opportunity for the completion of the work and in such a way as to prevent unnecessary delays, cutting, patching and the

need to remove and replace completed work.

- .5 No extra costs to the Contract will be considered by the Departmental Representative as a result of Contractor's failure to effectively coordinate all portions of the Work. Disputes between the various trades as a result of their not being informed of the areas and extent of interface work shall be the sole responsibility of the General Contractor to be resolved at own cost.

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- 1.1 RELATED SECTIONS
- .1 Section 01 14 10 - Scheduling and Management of the Work.
  - .2 Section 01 35 24 - Special Procedures on Safety Requirements.
  - .3 Section 01 03 29 - Health and Safety Requirements.
  - .4 Section 01 78 00 - Closeout Submittals.
  - .5 Section 02 65 00 - Aboveground Storage Tank Removal
- 1.2 SUBMITTAL GENERAL REQUIREMENTS
- .1 Submit to Departmental Representative for review requested submittals specified in various sections of the specifications including shop drawings, samples, permits, compliance certificates, test reports, work management plans and other data required as part of the work.
  - .2 Submit with reasonable promptness and in orderly sequence so as to allow for Departmental Representative's review and not cause delay in Work. Failure to submit in ample time will not be considered sufficient reason for an extension of Contract time and no claim for extension by reason of such default will be allowed.
  - .3 Do not proceed with work until relevant submissions have been reviewed.
  - .4 Present shop drawings, product data, samples and mock-ups in SI Metric units.
  - .5 Where items or information is not produced in SI Metric units, provide soft converted values.
  - .6 Review submittals prior to submission. Ensure that necessary requirements have been

determined and verified and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents.

- .1 Submittals not stamped, signed, dated and identified as to specific project will be returned unexamined by Departmental Representative and considered rejected.
- .7 Verify field measurements and affected adjacent Work are coordinated.
- .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 errors, omissions or deviations in submission from requirements of Contract Documents is not relieved by Departmental Representative's review.
- .10 Submittal format: paper originals, or alternatively clear and fully legible photocopies of originals. Facsimiles are not acceptable, except in special circumstances pre-approved by Departmental Representative. Poorly printed non-legible photocopies or facsimiles will not be accepted and be returned for resubmission.
- .11 Make changes or revision to submissions which Departmental Representative may require, consistent with Contract Documents and resubmit as directed by Departmental Representative. When resubmitting, identify in writing of any revisions other than those requested.
- .12 Keep one reviewed copy of each submittal document on site for duration of Work.

1.3 SHOP DRAWINGS  
AND PRODUCT DATA

- .1 The term "shop drawings" means fabrication drawings, erection drawings, diagrams, illustrations, schedules, performance charts, technical product data, brochures, specifications, test reports installation instructions and other data which are to be provided by Contractor to illustrate compliance with specified materials and details of a portion of work.
- .2 Shop Drawing Submittal Schedule:
  - .1 Submit within 5 working days of acceptance of bid a schedule listing all shop drawings to be submitted for project.
  - .2 Schedule shall be in format acceptable to Departmental Representative and indicate proposed submission date for each item, status of review and anticipated product delivery date to site. Track all submissions for entire project.
  - .3 Revise schedule as work progresses. Identify items which have been reviewed and finalized and indicating those outstanding.
  - .4 Update schedule at stipulated dates or project time intervals predetermined and agreed upon with Departmental Representative at commencement of Work.
- .3 Shop Drawing Quantities: submit sufficient copies required by the General Contractor and sub-contractors plus 3 copies which will be retained by Departmental Representative.
  - .1 Ensure sufficient copies are submitted to enable one complete set to be included in each of the maintenance manuals specified in 01 78 00.
- .4 Shop Drawings Format:
  - .1 Opaque white prints or photocopies of original drawings or standard drawings

- modified to clearly illustrate work specific to project requirements. Maximum sheet size to be 1000 x 707 mm.
- .2 Product Data from manufacturer's standard catalogue sheets, brochures, literature, performance charts and diagrams, used to illustrate standard manufactured products, to be original full colour brochures, clearly marked indicating applicable data and deleting information not applicable to project.
  - .3 Non or poorly legible drawings, photocopies or facsimiles will not be accepted and returned not reviewed.
- .5 Shop Drawings Content:
- .1 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where items or equipment attach or connect to other items or equipment, confirm that all interrelated work have been coordinated, regardless of section or trade from which the adjacent work is being supplied and installed.
  - .2 Supplement manufacturer's standard drawings and literature with additional information to provide details applicable to project.
  - .3 Delete information not applicable to project on all submittals.
- .6 Allow 7 calendar days for Departmental Representative's review of each submission.
- .7 Adjustments or corrections made on shop drawings by Departmental Representative are not intended to change Contract Price. If adjustments affect value of Work, advise Departmental Representative in writing prior to proceeding with Work.

- .8 If upon review by Departmental Representative, no errors or omissions are discovered or if only minor corrections and comments are made, fabrication and installation may proceed upon receipt of shop drawings. If shop drawings are rejected and noted to be Resubmitted, do not proceed with that portion of work until resubmission and review of corrected shop drawings, through same submission procedures indicated above.
- .9 Be advised that costs and expenses incurred by Departmental Representative to conduct more than one review of incorrectly prepared shop drawing submittal for a particular material, equipment or component of work may be assessed against the Contractor in the form of a financial holdback to the Contract.
- .10 Accompany each submissions with transmittal letter, in [duplicate], containing:
  - .1 Date.
  - .2 Project title and project number.
  - .3 Contractor's name and address.
  - .4 Identification and quantity of each shop drawing, product data and sample.
  - .5 Other pertinent data.
- .11 Submissions shall include:
  - .1 Date and revision dates.
  - .2 Project title and project 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 Cross references to particular details of contract drawings and specifications section number for which shop drawing submission addresses.

- .6 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.
  - .7 Operating weight.
  - .8 Wiring diagrams.
  - .9 Single line and schematic diagrams.
  - .10 Relationship to adjacent work.
- .12 After Departmental Representative's review, distribute copies.
- .13 The review of shop drawings by the Departmental Representative or designate is for sole purpose of ascertaining conformance with general concept. This review shall not mean that Canada approves the detail design inherent in the shop drawings, responsibility for which shall remain with Contractor submitting same, and such review shall not relieve Contractor of responsibility for errors or omissions in shop drawings or of responsibility for meeting all requirements of the construction and Contract Documents. Without restricting generality of foregoing, Contractor is responsible for dimensions to be confirmed and correlated at job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of Work of all sub-trades.

1.4 SAMPLES

- .1 Submit for review samples as specified in respective specification Sections. Label samples with origin and intended use.

- .2 Deliver samples to Departmental Representative's office or to other address as directed. Do not drop off samples at construction site except for pre-approved circumstances previously approved by Departmental Representative.
- .3 Notify Departmental Representative in writing, at time of submission of deviations in samples from requirements of Contract Documents.
- .4 Where colour, pattern or texture is criterion, submit full range of samples.
- .5 Adjustments made on samples by Departmental Representative are not intended to change Contract Price. If adjustments will result in a cost increase to the Contract notify Departmental Representative in writing prior to proceeding with Work.
- .6 Make changes in samples which Departmental Representative may require, consistent with Contract Documents.
- .7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

- 1.1 SECTION INCLUDES
- .1 Fire Safety Requirements
  - .2 Hot Work Permit
  - .3 Existing Fire Protection and Alarm Systems
- 1.2 RELATED WORK
- .1 Section 01 35 29 Health and Safety Requirements
  - .2 Section 01 33 00 Submittal Procedures
  - .3 Section 01 14 10 Scheduling and Management of Work
  - .4 Section 02 65 00 - Aboveground Storage Tank Removal
- 1.3 REFERENCES
- .1 Fire Protection Standards issued by Fire Protection Services, Labour Program Division of Service Canada:
    - .1 FCC No. 301-June 1982 Standard for Construction Operations.
    - .2 FCC No. 302-June 1982 Standard for Welding and Cutting.
- 1.4 DEFINITIONS
- .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.
    - .4 Use of open flame torches such as for roofing work.
- 1.5 SUBMITTALS
- .1 Submit copy of Hot Work Procedures and sample of Hot Work permit to Departmental Representative for review, within [14] calendar days of acceptance of bid.
  - .2 Submit in accordance with section [01 33 00]

1.6 FIRE SAFETY  
REQUIREMENTS

- .1 Implement and follow fire safety measures during Work. Comply with following:
  - .1 National Fire Code.
  - .2 Fire Protection Standards FCC 301 and FCC 302.
  - .3 Federal and Provincial Occupational Health and Safety Acts and Regulations.
- .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.

1.7 HOT WORK  
AUTHORIZATION

- .1 Obtain Departmental Representative's written "Authorization to Proceed" before conducting any form of Hot Work on site.
- .2 To obtain authorization submit to Departmental Representative:
  - .1 Contractor's typewritten Hot Work Procedures to be followed on site as specified below.
  - .2 Description of the type and frequency of Hot Work required.
  - .3 Sample Hot Work Permit to be used.
- .3 Upon review and confirmation that effective fire safety measures will be implemented and followed during performance of hot work, Departmental Representative will give authorization to proceed as follows:
  - .1 Issue one written "Authorization to Proceed" covering the entire project for duration of work or;
  - .2 Subdivide the work into pre-determined, individual activities, each activity requiring a separately written authorization to proceed.

- .4 Requirement for individual authorization will be based on:
  - .1 Nature or phasing of work;
  - .2 Risk to Facility operations;
  - .3 Quantity of various trades needing to perform hot work on project or;
  - .4 Other situation deemed necessary by Departmental Representative to ensure fire safety on premises.
- .5 Do not perform any Hot Work until receipt of Departmental Representative's written "Authorization to Proceed" for that portion of work.
- .6 In tenant occupied Facility, coordinate performance of Hot Work with Facility Manager through the Departmental Representative. When directed, perform Hot Work only during non-operative hours of the Facility. Follow Departmental Representative's directives in this regard.

1.8 HOT WORK  
PROCEDURES

- .1 Develop and implement safety procedures and work practices to be followed during the performance of Hot Work.
- .2 Hot Work Procedures to include:
  - .1 Requirement to perform hazard assessment of site and immediate work area beforehand for each hot work event in accordance with Safety Plan specified in section [01 35 29].
  - .2 Use of a Hot Work Permit system with individually issued permit by Contractor's Superintendent to worker or subcontractor granting permission to proceed with Hot Work.
  - .3 Permit required for each Hot Work event.
  - .4 Designation of a person on site as a Fire Safety Watcher responsible to conduct a fire safety watch for a minimum duration of 30 minutes immediately

- following the completion of the Hot Work.
- .5 Compliance with fire safety codes, standards and occupational health and safety regulations specified.
  - .6 Site specific rules and procedures in force at the site as provided by the Facility Manager.
- .3 Generic procedures, if used, must be edited and supplemented with pertinent information tailored to reflect specific project conditions. Label document as being the Hot Work Procedures for this contract.
  - .4 Procedures shall clearly establish responsibilities of:
    - .1 Worker performing hot work,
    - .2 Person issuing the Hot Work Permit,
    - .3 Fire Safety Watcher,
    - .4 Subcontractor(s) and Contractor.
  - .5 Brief all workers and subcontractors on Hot Work Procedures and of Permit system. Stringently enforce compliance.
- 1.9 HOT WORK  
PERMIT
- .1 Hot Work Permit to include the following:
    - .1 Project name and project number;
    - .2 Building name and specific room or area where hot work will be performed;
    - .3 Date of issue;
    - .4 Description of hot work type needed;
    - .5 Special precautions to be followed, including type of fire extinguisher needed;
    - .6 Name and signature of permit issuer.
    - .7 Name of worker to which the permit is issued.
    - .8 Permit validity period not to exceed 8 hours. Indicate start time/date and termination time/date.
    - .9 Worker's signature with time/date of hot work completion.

- .10 Stipulated time period of safety watch.
- .11 Fire Safety Wather's signature with time/date.
  
- .2 Permit to be typewritten form. Industry Standard forms shall only be used if all data specified above is included on form.
  
- .3 Each Hot Work Permit to be completed in full, signed and returned to Contractor's Superintendent for safe keeping on site.
  
- 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, Facility owner, 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 assessment documentation on site for duration of Work.
  
  - .2 Upon request, make available to Departmental Representative or to authorized safety Representative for inspection.

- 1.1 SECTION INCLUDES
- .1 Procedures to isolate and lockout electrical facility and other equipment from energy sources.
- 1.2 RELATED WORK
- .1 Section 01 35 29 - Health and Safety
  - .2 Section 01 14 00 - Scheduling and Management of Work
  - .3 Section 01 50 00 - Temporary Facilities
  - .4 Section 02 65 00 - Aboveground Storage Tank Removal
- 1.3 REFERENCES
- .1 CSA C22.1-06 - Canadian Electrical Code, Part 1, Safety Standard for Electrical Installations.
  - .2 CAN/CSA C22.3 No.1-06 - Overhead Systems.
  - .3 CSA C22.3 No.7-06 - Underground Systems.
  - .4 COSH: Canada Occupational Health and Safety Regulations made under Part II of the Canada Labor Code.
- 1.4 DEFINITIONS
- .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 has been 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.
- .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.

1.5 COMPLIANCE  
REQUIREMENTS

- .1 Comply with the following in regards to isolation and lockout of electrical facilities and equipment:
  - .1 Canadian Electrical Code
  - .2 Federal and Provincial Occupational Health and Safety Acts and Regulations.
  - .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.

1.6 SUBMITTALS

- .1 Submit copy of lockout procedures, sample of lockout permit and lockout tags proposed for use in accordance with Section 01 33 00. Submit within 14 calendar days of acceptance of bid.

1.7 ISOLATION OF  
EXISTING SERVICES

- .1 Obtain Departmental Representative's written authorization prior to working on existing live or active electrical facilities and equipment and before proceeding with isolation of such item.
- .2 To obtain authorization, submit to Departmental Representative the following documentation:
  - .1 Written request to isolate the particular 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, as follows:
  - .1 Fill-out standard form in current use at the Facility as provided by Departmental Representative or;
  - .2 Where no form exist, make written request indicating:
    - .1 The equipment, system or service to be isolated and its location;
    - .2 Duration of isolation period (ie: start time & date and completion time & date).
    - .3 Voltage of service feed to system or equipment being isolated.
    - .4 Name of person making the request.
- .4 Do not proceed with isolation until receipt of written notification from Departmental Representative granting the Isolation

Request and authorizing to proceed with the work.

- .1 Note that Departmental Representative may designate another person at the Facility being authorized to grant the Isolation Request.
- .5 Conduct safe, orderly shutdown of equipment or facility. De-energize, isolate and lockout power and other sources of energy feeding the equipment or facility.
- .6 Determine in advance, as much as possible, in cooperation with the Departmental Representative, the type and frequency of situations which will require isolation of existing services.
- .7 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. Follow Departmental Representative's directives in this regard.
- .8 Conduct hazard assessment as part of the process in accordance with health and safety requirements specified Section 01 35 29.

## 1.8 LOCKOUTS

- .1 De-energize, isolate and lockout electrical facility, mechanical equipment and machinery from all potential sources of energy prior to working on such items.
- .2 Develop and implement clear and specific lockout procedures to be followed as part of the Work.
- .3 Prepare typed written Lockout Procedures describing safe work practices, procedures, worker responsibilities and sequence of activities to be followed on site by workforce to safely isolate an active piece of equipment or electrical facility and effectively

lockout and tagout it's sources of energy.

- .4 Include as part of the Lockout Procedures a system of lockout permits managed by Contractor's Superintendent or other qualified person designated by him/her as being "in-charge" at the site.
  - .1 A lockout permit shall be issued to specific worker providing a Guarantee of Isolation before each event when work must be performed on a live equipment or electrical facility.
  - .2 Duties of person managing the permit system to include:
    - .1 Issuance of permits and lockout tags to workers.
    - .2 Determining permit duration.
    - .3 Maintaining record of permits and tags issued.
    - .4 Making a Request for Isolation to Departmental Representative when required as specified above.
    - .5 Designating a Safety Watcher, when one is required based on type of work.
    - .6 Ensuring equipment or facility has been properly isolated.
    - .7 Collecting and safekeeping lockout tags returned by workers as a record of the event.
- .5 Clearly establish, describe and allocate responsibilities of:
  - .1 Workers.
  - .2 Person managing the lockout permit system.
  - .3 Safety Watcher.
  - .4 Subcontractor(s) and General Contractor.
- .6 Generic procedures, if used, must be edited and supplemented with pertinent information to reflect specific project requirements.
  - .1 Incorporate site specific rules and procedures in force at site as provided

- by Facility Manager through the  
Departmental Representative.
- .2 Clearly label the document as being the  
Lockout procedures applicable to work  
of this contract.
  - .7 Use energy isolation lockout devices  
specifically designed and appropriate for  
type of facility or equipment being locked  
out.
  - .8 Use industry standard lockout tags.
  - .9 Provide appropriate safety grounding and  
guards as required.
- 1.9 CONFORMANCE
- .1 Brief all workers and subcontractors on  
requirements of this section. Stringently  
enforce use and compliance.
- 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 forms  
and lockout permits and tags issued to workers  
on site for full duration of Work.
  - .3 Upon request, make available to Departmental  
Representative or to authorized safety  
Representative for inspection.

- 
- 1.1 RELATED WORK
- .1 Section 01 35 24: Special Procedures on Fire Safety Requirements.
  - .2 Section 01 35 29: Security Requirements at Correctional Service Canada Facilities.
  - .3 Section 02 65 00: Aboveground Storage Tank Removal
- 1.2 DEFINITIONS
- .1 COSH: Canada Occupational Health and Safety Regulations made under Part II of the Canada Labor Code.
  - .2 Competent Person: means a person who is:
    - .1 Qualified by virtue of personal knowledge, training and experience to perform assigned work in a manner that will ensure the health and safety of persons in the workplace, and;
    - .2 Knowledgeable about the provisions of occupational health and safety statutes and regulations that apply to the Work and;
    - .3 Knowledgeable about potential or actual danger to health or safety associated with the Work.
  - .3 Medical Aid Injury: 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.
  - .4 PPE: personal protective equipment
  - .5 Work Site: where used in this section shall mean areas, located at the premises where Work is undertaken, used by Contractor to perform all of the activities associated with the performance of the Work.
- 1.3 SUBMITTALS
- .1 Make submittals in accordance with Section

01 33 00.

- .2 Submit site-specific Health and Safety Plan prior to commencement of Work.
  - .1 Submit within 10 work days of notification of Bid Acceptance. Provide 3 copies.
  - .2 Departmental Representative will review Health and Safety Plan and provide comments.
  - .3 Revise the Plan as appropriate and resubmit within 5 work days after receipt of comments.
  - .4 Departmental Representative's review and comments made of the Plan shall not be construed as an endorsement, approval or implied warranty of any kind by Canada and does not reduce Contractor's overall responsibility for Occupational Health and Safety of the Work.
  - .5 Submit revisions and updates made to the Plan during the course of Work.
- .3 Submit name of designated Health & Safety Site Representative and support documentation specified in the Safety Plan.
- .4 Submit building permit, compliance certificates and other permits obtained.
- .5 Submit copy of Letter in Good Standing from Provincial Workers Compensation or other department of labor organization.
  - .1 Submit update of Letter of Good Standing whenever expiration date occurs during the period of Work.
- .6 Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.
- .7 Submit copies of incident reports.
- .8 Submit WHMIS MSDS - Material Safety Data Sheets.

1.4 COMPLIANCE  
REQUIREMENTS

- .1 Comply with Occupational Health and Safety Act for Province of New Brunswick, and General Regulations made pursuant to the Act.
- .2 Comply with Canada Labor Code - Part II (entitled Occupational Health and Safety) and the Canada Occupational Health and Safety Regulations (COSH) as well as any other regulations made pursuant to the Act.
  - .1 The Canada Labor Code can be viewed at:  
[www.http://laws.justice.gc.ca/en/L-2/](http://laws.justice.gc.ca/en/L-2/)
  - .2 COSH can be viewed at:  
[www.http://laws.justice.gc.ca/eng/SOR-86-304/ n e .html](http://laws.justice.gc.ca/eng/SOR-86-304/ne.html)
  - .3 A copy may be obtained at: 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)
- .3 Observe construction safety measures of:
  - .1 Part 8 of National Building Code
  - .2 Municipal by-laws and ordinances.
- .4 In case of conflict or discrepancy between above specified requirements, the more stringent shall apply.
- .5 Maintain Workers Compensation Coverage in good standing for duration of Contract. Provide proof of clearance through submission of Letter in Good Standing.
- .6 Medical Surveillance: Where prescribed by legislation or regulation, obtain and maintain worker medical surveillance documentation.

1.5 RESPONSIBILITY

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons and environment adjacent to the site to extent that they may

be affected by conduct of Work.

- .2 Comply with and enforce compliance by all workers, sub-contractors and other persons granted access to Work Site with safety requirements of Contract Documents, applicable federal, provincial, and local by-laws, regulations, and ordinances, and with site-specific Health and Safety Plan.

1.6 SITE CONTROL  
AND ACCESS

- .1 Control the Work and entry points to Work Site. Approve and grant access only to workers and authorized persons. Immediately stop and remove non-authorized persons.
  - .1 Departmental Representative will provide names of those persons authorized by Departmental Representative to enter onto Work Site and will ensure that such authorized persons have the required knowledge and training on Health and Safety pertinent to their reason for being at the site, however, Contractor remains responsible for the health and safety of authorized persons while at the Work Site.
- .2 Isolate Work Site from other areas of the premises by use of appropriate means.
  - .1 Erect fences, hoarding, barricades and temporary lighting as required to effectively delineate the Work Site, stop non-authorized entry, and to protect pedestrians and vehicular traffic around and adjacent to the Work and create a safe environment. See Section 01 50 00 for minimum acceptable requirements].
  - .2 Post signage at entry points and other strategic locations indicating restricted access and conditions for access.
  - .3 Use professionally made signs with bilingual message in the 2 official languages or international known graphic symbols.

- .3 Provide safety orientation session to persons granted access to Work Site. Advise of hazards and safety rules to be observed while on site.
- .4 Ensure persons granted site access wear appropriate PPE. Supply PPE to inspection authorities who require access to conduct tests or perform inspections.
- .5 Secure Work Site against entry when inactive or unoccupied and to protect persons against harm.

1.7 PROTECTION

- .1 Give precedence to safety and health of persons and protection of environment over cost and schedule considerations for Work.
- .2 Should unforeseen or peculiar safety related hazard or condition become evident during performance of Work, immediately take measures to rectify situation and prevent damage or harm. Advise Departmental Representative verbally and in writing.

1.8 FILING OF NOTICE

- .1 File Notice of Project with pertinent provincial health and safety authorities prior to beginning of Work.
  - .1 Departmental Representative will assist in locating address if needed.

1.9 PERMITS

- .1 Post permits, licenses and compliance certificates, specified in section 01 10 10, at Work Site.
- .2 Where a particular permit or compliance certificate cannot be obtained, notify Departmental Representative in writing and obtain approval to proceed before carrying out applicable portion of work.

1.10 HAZARD

- .1 Perform site specific health and safety

ASSESSMENTS

hazard assessment of the Work and its site.

- .2 Carryout initial assessment prior to commencement of Work with further assessments as needed during progress of work, including when new trades and subcontractors arrive on site.
- .3 Record results and address in Health and Safety Plan.
- .4 Keep documentation on site for entire duration of the Work.

1.11 PROJECT/SITE  
CONDITIONS

- .1 Following are potential health, environmental and safety hazards at the site for which Work may involve contact with:
  - .1 Existing hazardous and controlled products stored on site:
    - .1 Natural gas line and connections.
    - .2 Above ground oil storage tanks and connection lines.
  - .2 Facility on-going operations:
    - .1 Contact with inmates. Ensure that employees follow CSC security requirements as indicated in the tender specifications.
    - .2 Fire hazard. Ensure that employees follow directives indicated in specification section 01 35 24.
  - .3 Working from heights.
  - .4 Potential working with asbestos material.
  - .5 Potential structure weakness.
  - .6 Working in a confined space.
  - .7 Possibility of working with atmospheric hazard(cleaning inside the tanks).
- .2 Above items shall not be construed as being complete and inclusive of potential health and safety hazards encountered during Work.
- .3 Include above items in the hazard assessment

of the Work.

- .4 MSDS Data sheets of pertinent hazardous and controlled products stored on site can be obtained from Departmental Representative.

1.12 MEETINGS

- .1 Attend pre-construction health and safety meeting, convened and chaired by Departmental Representative, prior to commencement of Work, at time, date and location determined by Departmental Representative. Ensure attendance of:
  - .1 Superintendent of Work
  - .2 Designated Health & Safety Site Representative
  - .3 Subcontractors
- .2 Conduct regularly scheduled tool box and safety meetings during the Work in conformance with Occupational Health and Safety regulations.
- .3 Keep documents on site.

1.13 HEALTH AND SAFETY PLAN

- .1 Prior to commencement of Work, develop written Health and Safety Plan specific to the Work. Implement, maintain, and enforce Plan for entire duration of Work and until final demobilization from site.
- .2 Health and Safety Plan shall include the following components:
  - .1 List of health risks and safety hazards identified by hazard assessment.
  - .2 Control measures used to mitigate risks and hazards identified.
  - .3 On-site Contingency and Emergency Response Plan as specified below.
  - .4 On-site Communication Plan as specified below.
  - .5 Name of Contractor's designated Health and Safety Site Representative and

- information showing proof of his/her competence and reporting relationship in Contractor's company.
- .6 Names, competence and reporting relationship of other supervisory personnel used in the Work for occupational health and safety purposes.
- .3 On-site Contingency and Emergency Response Plan shall include:
    - .1 Operational procedures, evacuation measures and communication process to be implemented in the event of an emergency.
    - .2 Evacuation Plan: site and floor plan layouts showing escape routes, marshalling areas. Details on alarm notification methods, fire drills, location of fire fighting equipment and other related data.
    - .3 Name, duties and responsibilities of persons designated as Emergency Warden(s) and deputies.
    - .4 Emergency Contacts: name and telephone number of officials from:
      - .1 General Contractor and subcontractors.
      - .2 Pertinent Federal and Provincial Departments and Authorities having jurisdiction.
      - .3 Local emergency resource organizations.
    - .5 Harmonize Plan with Facility's Emergency Response and Evacuation Plan. Departmental Representative will provide pertinent data including name of PWGSC and Facility Management contacts.
    - .6 Environmental spill response procedures specific to hydrocarbon products as described in 01 35 43, section 1.6.
- .4 On-site Communication Plan:
    - .1 Procedures for sharing of work related

- safety information to workers and subcontractors, including emergency and evacuation measures.
- .2 List of critical work activities to be communicated with Facility Manager which have a risk of endangering health and safety of Facility users.
  - .5 Address all activities of the Work including those of subcontractors.
  - .6 Review Health and Safety Plan regularly during the Work. Update as conditions warrant to address emerging risks and hazards, such as whenever new trade or subcontractor arrive at Work Site.
  - .7 Departmental Representative will respond in writing, where deficiencies or concerns are noted and may request re-submission of the Plan with correction of deficiencies or concerns.
  - .8 Post copy of the Plan, and updates, prominently on Work Site.
- 1.14 SAFETY  
SUPERVISION
- .1 Employ Health & Safety Site Representative responsible for daily supervision of health and safety of the Work.
  - .2 Health & Safety Site Representative may be the Superintendent of the Work or other person designated by Contractor and shall be assigned the responsibility and authority to:
    - .1 Implement, monitor and enforce daily compliance with health and safety requirements of the Work
    - .2 Monitor and enforce Contractor's site-specific Health and Safety Plan.
    - .3 Conduct site safety orientation session to persons granted access to Work Site.
    - .4 Ensure that persons allowed site access are knowledgeable and trained in health

and safety pertinent to their activities at the site or are escorted by a competent person while on the Work Site.  
.5 Stop the Work as deemed necessary for reasons of health and safety.

- .3 Health & Safety Site Representative must:
  - .1 Be qualified and competent person in occupational health and safety.
  - .2 Have site-related working experience specific to activities of the Work.
  - .3 Be on Work Site at all times during execution of the Work.
- .4 All supervisory personnel assigned to the Work shall also be competent persons.
- .5 Inspections:
  - .1 Conduct regularly scheduled safety inspections of the Work on a minimum [bi-weekly] basis. Record deficiencies and remedial action taken.
  - .2 Conduct Formal Inspections on a minimum [monthly] basis. Use standardized safety inspection forms. Distribute to subcontractors.
  - .3 Follow-up and ensure corrective measures are taken.
- .6 Cooperate with Facility's Occupational Health and Safety representative should one be designated by Departmental Representative.
- .7 Keep inspection reports and supervision related documentation on site.

1.15 TRAINING

- .1 Use only skilled workers on Work Site who are effectively trained in occupational health and safety procedures and practices pertinent to their assigned task.

- .2 Maintain employee records and evidence of training received. Make data available to Departmental Representative upon request.
- .3 When unforeseen or peculiar safety-related hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Province having jurisdiction and advise Departmental Representative verbally and in writing.

1.16 MINIMUM  
SITE SAFETY RULES

- .1 Notwithstanding requirement to abide by federal and provincial health and safety regulations; ensure the following minimum safety rules are obeyed by persons granted access to Work Site:
  - .1 Wear appropriate PPE pertinent to the Work or assigned task; minimum being hard hat, safety footwear, safety glasses and hearing protection.
  - .2 Immediately report unsafe condition at site, near-miss accident, injury and damage.
  - .3 Maintain site and storage areas in a tidy condition free of hazards causing injury.
  - .4 Obey warning signs and safety tags.
- .2 Brief persons of disciplinary protocols to be taken for non compliance. [Post rules on site].

1.17 CORRECTION OF  
NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Departmental Representative.
- .2 Provide Departmental Representative with written report of action taken to correct non-compliance of health and safety issues identified.

- .3 Departmental Representative will stop Work if non-compliance of health and safety regulations is not corrected in a timely manner.

1.18 INCIDENT REPORTING

- .1 Investigate and report the following incidents to Departmental Representative:
  - .1 Incidents requiring notification to Provincial Department of Occupational Safety and Health, Workers Compensation Board or to other regulatory Agency.
  - .2 Medical aid injuries.
  - .3 Property damage in excess of \$10,000.00,
  - .4 Interruptions to Facility operations resulting in an operational lost to a Federal department in excess of \$5000.00.
- .2 Submit report in writing.

1.19 HAZARDOUS PRODUCTS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS).
- .2 Keep MSDS data sheets for all products delivered to site.
  - .1 Post on site.
  - .2 Submit copy to Departmental Representative.
  - .3 For interior work in an occupied Facility, post additional copy in one or more publically accessible locations.

1.20 BLASTING

- .1 Blasting or other use of explosives is not permitted on site.

1.21 POWDER ACTUATED DEVICES

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

Departmental Representative.

1.22 CONFINED  
SPACES

- .1 Abide by occupational health and safety regulations regarding work in confined spaces.
- .2 Obtain an Entry Permit in accordance with Part XI of the Canada Occupational Health and Safety Regulations for entry into an existing identified confined space located at the Facility or premises of Work.
  - .1 Obtain permit from Facility Manager
  - .2 Keep copy of permit issued.
- .3 Safety for Inspectors:
  - .1 Provide PPE and training to Departmental Representative and other persons who require entry into confined space to perform inspections.
  - .2 Be responsible for efficacy of equipment and safety of persons during their entry and occupancy in the confined space.

1.23 SITE RECORDS

- .1 Maintain on Work Site copy of safety related documentation and reports stipulated to be produced in compliance with Acts and Regulations of authorities having jurisdiction and of those documents specified herein.
- .2 Upon request, make available to Departmental Representative or authorized Safety Officer for inspection.

1.24 POSTING OF  
DOCUMENTS

- .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on Work Site in accordance with Acts and Regulations of Province having jurisdiction.
- .2 Post other documents as specified herein, including:
  - .1 Site specific Health and Safety Plan
  - .2 WHMIS data sheets

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- 1.1 RELATED WORK .1 Section 01 14 10 - Scheduling and Management of Work.
- .2 Section 01 35 29 - Health and Safety Requirements.
- .3 Section 02 65 00 - Aboveground Storage Tank Removal.
- .4 Section 31 23 33.01 - Excavating, Trenching and Backfill.
- 1.2 DEFINITIONS .1 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.
- 1.3 FIRES .1 Fires and burning of rubbish on site are not permitted.
- 1.4 HAZARDOUS MATERIAL HANDLING .1 Store and handle hazardous materials in accordance with applicable federal and provincial laws, regulations, codes 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 began.
- .4 Store and handle flammable and combustible materials in accordance with National Fire Code.

.5 Transport hazardous materials in accordance with federal Transportation of Dangerous Goods Regulations and applicable Provincial regulations.

1.5 DISPOSAL OF WASTES

.1 Do not bury rubbish and waste materials on site.

.2 Do not dispose of hazardous waste or volatile materials, such as mineral spirits, paints, thinners, oil or fuel into waterways, storm or sanitary sewers or waste landfill sites.

.3 Dispose of hazardous waste in accordance with applicable federal and provincial laws, regulations, codes and guidelines.

1.6 Emergency Spill Response

.1 Contractor shall provide environmental spill response procedures in the on-site Contingency and Emergency Response Plan described in 01 35 29. The environmental response procedure shall be specific to hydrocarbon products. The plan will be reviewed and approved by the Departmental Representative after contract award.



Director.

- .5 Smoking is not permitted on Institutional property. Unauthorized smoking items: means all smoking items including, but not limited to, cigarettes, cigars, tobacco, chewing or snuffing tobacco, cigarette making machines, matches and lighters.
- .6 Commercial vehicle: means any motor vehicle used to transport materials, equipment and tools to the site as required for construction purposes.
- .7 CSC: means the Department of Correctional Service Canada.
- .8 Construction employee: means any person working for the General Contractor or subcontractor(s), commercial vehicle or equipment operator, material supplier and personnel from testing, inspection or regulatory agencies who needs to circulate on the Institution's property as part of the Work.
- .9 Departmental Representative: means the person as defined in the General Conditions of the Contract for projects managed by Public Works and Government Services Canada (PWGSC) or the Project Manager for projects managed by Correctional Service Canada (CSC).
- .10 Perimeter: means the fenced or walled area of the Institution that restrains the movement of the inmates.
- .11 Construction zone: means the area as shown on the contract drawings and as described below where the Contractor will be allowed to work. This area may or may not be isolated from the security area of the Institution.
  - .1 In general, Contractor's work

activities and movement is limited to the yard besides building C-7 and the area designated by the Institution during the startup meeting.

1.3 PRELIMINARY  
PROCEEDINGS

- .1 Prior to commencement of work, the Contractor shall meet with the Director to:
  - .1 Discuss the nature and extent of all activities involved in the work of this contract.
  - .2 Obtain security rules, regulations and procedures in force at the Institution and directives to be followed by Contractor and all construction employees during the entire course of the work.
- .2 The Departmental Representative will coordinate a pre-construction meeting between Contractor, the Director and Facility security personnel who will provide details on site security requirements.
- .3 The Contractor shall:
  - .1 Ensure that all construction employees are aware of the CSC security requirements.
  - .2 Ensure that a copy of the CSC security requirements is prominently displayed at the work site at all times.
  - .3 Co-operate with Institutional staff in ensuring that security requirements and procedures are stringently followed by all construction employees.
  - .4 Any infraction of site security requirements by the Contractor or by a construction employee could result in the immediate removal of the offending party or person from the site.



- .6 CSC Security Clearance will be denied and entry into the Institution will be refused to any person who the Director has reason to believe may be a security risk to the Facility's operations.
  - .1 Also, a person will be subject to the immediate removal from the Institution if he/she:
    - .1 Appears to be under the influence of alcohol, drugs or narcotics.
    - .2 Behaves in a disorderly manner.
    - .3 Is found in possession of contraband.
- .7 Facilitate security clearance application process:
  - .1 Provide copy of security clearance form to all workers including those of sub-contractors.
  - .2 Provide a list of names and birth dates for all persons who require security clearance to the Departmental Representative.
  - .3 Coordinate and expedite submissions from the various subcontractors.
  - .4 Brief and assist applicants in preparing and submitting the required application form and related documentation.
  - .5 Review application form of each applicant for completeness before submission.
  - .6 Have each worker keep a copy of their completed application form in case the initial submission gets lost.
  - .7 Submit documentation in an organized manner with transmittal letter clearly identifying the project for which worker security clearance is being requested.
  - .8 Send submission(s) to the approved mailing address provided by the Departmental Representative.



1.7 SHIPMENTS

- .1 All shipments of materials, equipment and tools shall be clearly marked, addressed to the attention of the project title and Contractor's name to avoid confusion with the Institution's own shipments.
- .2 Contractor shall have designated employee(s) on site to receive and take possession of all deliveries and shipments.
- .3 Under no circumstances will personnel of the Institution accept delivery of materials, equipment and tools designated for use by the Contractor in the Work.

1.8 TELEPHONES

- .1 Telephone landlines, facsimile machines and computers with internet connections are not permitted within the secure perimeter of the Institution unless prior approval is obtained from the Director.
- .2 If approved, locate telephones, facsimile machines and computers with internet connections only where designated by the Director and in such location where they are not accessible to Inmates.
  - .1 Equip all computers with approved password protection features which will block internet connection to unauthorized computer users.
- .3 Wireless cellular and digital telephones, including but not limited to devices for telephone messaging, pagers, BlackBerries, telephone used as 2-way radios, are not permitted within the secure perimeter of the Institution unless prior approval is obtained from the Director.
  - .1 Should wireless cellular telephones be permitted, the owner/user of such device shall not permit it's use by any Inmate.
- .4 The Director may approve but limit the use



a financial assessment to the Contract.

1.11 TOOLS AND  
EQUIPMENT

- .1 Make a complete list of all tools and equipment brought on site for use in the work. Provide copy of the list to the Director and to Departmental Representative.
- .2 Maintain and update list during the entire course of the Work.
- .3 Keep all tools and equipment under constant supervision. This is of particular importance for power-driven and cartridge-driven tools, cartridges, files, saw blades, rod saws, wire, rope, ladders as well as all types of jacking devices.
- .4 Store all tools and equipment in lockable tool boxes and place in approved and secure locations.
- .5 Lock tool boxes when not in use. Keys shall remain in the possession of employees designated by Contractor.
- .6 Scaffolding: Store and securely lock scaffolding components when not erected. When erected, secure against unauthorized disassembly in manner approved by the Director.
- .7 Immediately report to the Director any missing tools and equipment.
- .8 Tool Check: Be aware that CSC security personnel will conduct tool/equipment checks during the course of the Work against the list provided by Contractor. Frequency of checks to be as follows:
  - .1 At commencement and completion of the project.
  - .2 Weekly basis when the construction period is greater than 1 week.

- .9 Controlled items: entry and use of certain tools and equipment, such as cartridges and hacksaw blades, are highly controlled at the Institution. The Director will determine and advise which items are to be controlled.
  - .1 Controlled items will be given to the Contractor at the beginning of each workday in quantities as required for 1 day's work.
  - .2 All controlled items must be returned to CSC security personnel at the end of each day including used blades, cartridges etc...
- .10 When propane or natural gas is used as fuel for construction heaters, the Contractor shall provide an employee to supervise that work site during non-working hours.

#### 1.12 KEYS

- .1 Security Hardware Keys:
  - .1 Arrange and ensure that keys for security door hardware are delivered directly by the hardware Supplier/Installer to the Institution's designated Security Maintenance Officer (SMO).
  - .2 The SMO will provide written receipt to Contractor for security keys received.
  - .3 Provide a copy of such receipt to the Departmental Representative.
- .2 Construction Keys:
  - .1 Supply and install construction cylinders on all new doors and keep such doors locked during the entire construction period.
  - .2 Instruct construction employees on the care and safekeeping of keys assigned to them to ensure safe custody of construction keys.
- .3 Construction cylinders shall only be removed and be replaced with operational cylinders

at such time as deemed appropriate by the Director. The SMO will, in conjunction with the lockset manufacturer:

- .1 Prepare an operational keying schedule.
- .2 Accept the operational keys and cylinders directly from the lockset manufacturer.
- .3 Arrange for removal and return of the construction cylinders and install the operational cylinders in all locks.

.4 Upon putting operational security keys into use, an approved security escort designated by the Director will thereafter obtain specific keys from the SMO and open those doors as required by Contractor to access work areas.

.5 Contractor shall issue instructions to all construction employees advising them that all security keys must always remain with the security escort.

1.13 SECURITY HARDWARE.1

Turn over to Director all security hardware removed as part of the work. This includes all items intended for disposal as well as those for temporary safekeeping until ready for reinstallation as part of the work.

1.14 PRESCRIPTION  
DRUGS

.1 Construction employees who are required to take prescription drugs during the workday shall obtain approval from the Director beforehand and shall only bring on site a one days supply each day.

1.15 SMOKING  
RESTRICTIONS

.1 Contractor and construction employees are not permitted to:

- .1 Smoke inside the Institution or outdoors within the secure perimeter of the Facility and;
- .2 Must not possess unauthorized smoking items within the secure perimeter of the Institution.

.2 All persons found in violation of this directive shall immediately cease smoking and dispose of any unauthorized smoking items. If violation persist, such persons will be removed from the Institution's property.

.3 Smoking on the Institution's property is only permitted outdoors, outside of the secure perimeter of the Institution and in a location designated by the Director.

1.16 CONTRABAND

.1 Weapons, ammunition, explosives, alcoholic beverages, drugs and narcotics are considered contraband by the Institution and are strictly prohibited on the Institution's property.

.2 The discovery of contraband on the construction site and the identification of the person(s) responsible for the contraband shall be reported immediately to the Director.

.3 Contractor shall be vigilant with all construction employees and suppliers in ensuring that no contraband items are brought on site. Advise all persons that the discovery of contraband will result in the cancellation of their security clearance and their immediate removal from the site. Serious infractions may result in the removal of the Contractor or subcontractor from the Institution's property for the duration of the Contract.

.4 Presence of arms and ammunition found in vehicles owned by Contractor, subcontractors, suppliers and construction employees will result in the immediate cancellation of security clearance for the driver of that vehicle.

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- 1.17 SEARCHES .1 All vehicles and persons entering Institutional property may be subject to search.
- .2 When the Director suspects, on reasonable grounds, that a construction employee is in possession of contraband, he/she may order that person to be searched.
- .3 Be aware that persons entering the Institution may be subject to screening of personal effects for traces of contraband drug residue.
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- 1.18 OFF-HOURS SITE ACCESS .1 Construction personnel and commercial vehicles will not be permitted access to the Institution outside of the stipulated work hours specified, unless approved by the Director.
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- 1.19 MOVEMENT OF VEHICLES .1 Be aware that commercial vehicles will only be allowed to enter or leave the secure perimeter of the Institution (i.e.: pass through the designated vehicle security gate) between the following hours of each day:
- .1 From 07:45 AM to 11:00 AM and;
  - .2 From 13:00 PM to 15:30 PM.
- .2 Vehicles shall not be allowed to leave the Institution until an inmate count has been completed.
- .3 Vehicles must be escorted by approved CSC Staff or Commissionaire while inside the secure perimeter of the Institution.
- .4 Contractor shall provide 24 hours advance notice to the Director of the arrival of heavy equipment such as excavator, cranes, concrete trucks etc...to the site.
- .5 Vehicles being loaded with soil or other debris at site, or any vehicle considered

impossible to search, must be under continuous supervision by Institutional staff or Commissionaires working under the authority of the Director.

- .6 Commercial vehicles will only be allowed access onto the Institution's property when their contents are certified by the Contractor, or his representative, as being strictly necessary to the execution of the work.
- .7 Vehicles shall be refused access to Institutional property if, in the opinion of the Director, they contain any article which jeopardizes the security of the Institution.
- .8 Private vehicles of construction employees will NOT be allowed inside the secure perimeter area of a medium or maximum security Institution, except for a special situation as may be authorized by the Director.
- .9 Subject to approval from the Director, a vehicle may be used in the morning and evening of each day to transport construction employees to and from work areas inside the secure perimeter of the Institution. However the vehicle shall not be allowed to remain parked inside that area during the remainder of the workday.
- .10 Subject to prior approval from the Director, certain construction equipment may be permitted to remain in the work areas during nighttime or weekend provided such equipment is securely locked and has it's battery removed. The Director may also require that the equipment be tied by chain and padlocked to a solid unmovable object.



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- 1.1 INSPECTION
- .1 Give timely notice requesting inspection of Work designated for special tests, inspections or approvals by Departmental Representative or by inspection authorities having jurisdiction.
  - .2 In accordance with the General Conditions, Departmental Representative may order any part of Work to be examined if Work is suspected to be not in accordance with Contract Documents.
  - .3 If Contractor covers or permits to be covered Work designated for special tests, inspections or approvals before such is made, uncover Work until particular inspections or tests have been fully and satisfactorily completed and until such time as Departmental Representative gives permission to proceed.
  - .4 Pay costs to uncover and make good work disturbed by inspections and tests.
- 1.2 TESTING
- .1 Tests on materials, equipment and building systems as specified in various sections of the Specifications is the responsibility of the Contractor except where stipulated otherwise.
    - .1 Provide all necessary instruments, equipment and qualified personnel to perform tests.
  - .2 At completion of tests, turn over 2 sets of fully documented tests reports to the Departmental Representative. Submit in accordance with Section 01 33 00.
    - .1 Obtain additional copies for inclusion of a complete set in each of the maintenance manuals specified in Section 01 78 00.
  - .3 Unspecified tests may also be made by Departmental Representative, at the

discretion of the Departmental Representative. The costs of these tests will be paid for by the Departmental Representative.

- .4 Where tests or inspections reveal work not in accordance with contract requirements, Contractor shall pay costs for additional tests and inspections incurred by Departmental Representative as required to verify acceptability of corrected work.

1.3 INDEPENDENT  
INSPECTION AGENCIES

- .1 Departmental Representative may engage and pay for service of Independent Inspection and Testing Agencies for purpose of inspecting and testing portions of Work except for the following which remain part of Contractor's responsibilities:
  - .1 Inspection and testing required by laws, ordinances, rules, regulations or orders of public authorities.
  - .2 Inspection and testing performed exclusively for Contractor's convenience.
  - .3 Testing, adjustment and balancing of mechanical and electrical equipment and other building systems.
  - .4 Performance verification tests before building commissioning procedures commences.
  - .5 Mill tests and certificates of compliance.
  - .6 Tests as specified within various sections designated to be carried out by Contractor under the supervision of Departmental Representative.
  - .7 Additional tests as specified in Clause [1.3.4] above.
- .2 Provide sufficient advance notice to Departmental Representative of time when the Work will be ready for testing by designated Testing Agency in order for Departmental

Representative to make attendance arrangements with such Agency. When directed by Departmental Representative notify the Agency directly.

- .3 When specified or directed, submit Representative samples of materials, in required quantities, to Testing Agency for testing purposes. Submit with reasonable promptness and in an orderly sequence so as not to cause delay in Work.
- .4 Provide labor and facilities to obtain, handle and deliver samples.
- .5 Provide sufficient space on site for Testing Agency's exclusive use to store equipment and cure test samples.
- .6 Employment of Independent Inspection and Testing Agencies by Departmental Representative does not relax responsibility to perform Work in accordance with Contract Documents.

1.4 ACCESS TO WORK

- .1 Facilitate Departmental Representative's access to Work. If part of Work is being fabricated at locations other than construction site, make preparations to allow access to such Work whenever it is in progress.
- .2 Furnish labor and facility to provide access to the work being inspected and tested.
- .3 Co-operate to facilitate such inspections and tests.

1.5 REJECTED WORK

- .1 Remove and replace defective Work, whether result of poor workmanship, use of defective or damaged products and whether incorporated in Work or not, which has been identified by

Departmental Representative as failing to conform to Contract Documents.

- .2 Make good damages to existing construction and finishes resulting from removal or replacement of defective work.

- 1.1 SITE ACCESS AND PARKING .1 The Departmental Representative will designate Contractor's access to project site as well as parking facilities for equipment and workers.
- .2 The Contractor is advised that while parking facilities for his workers and subcontractors will be on property, such parking facilities may be remote from the actual site of the work. In any case, follow all instructions from the Departmental Representative in regards to parking facilities.
- 1.2 BUILDING ACCESS .1 Use only access doors, and circulation routes within building as designated by Departmental Representative to access interior work.
- 1.3 CONTRACTOR'S SITE OFFICE .1 Be responsible for and provide own site office, if required, including electricity, heat, lights and telephone. Locate site office outside perimeter wall as directed by Departmental Representative.
- 1.4 MATERIAL STORAGE .1 Locate site storage trailers where directed by Departmental Representative. Place in location of least interference with existing Facility operations.
- .2 Material storage space on site does not exist. Coordinate demolition and removal to minimize storage period on site before being transported to disposal facility.
- 1.5 SITE ENCLOSURES .1 Provide temporary fences and gates where indicated on drawings and as otherwise stated by Departmental Representative to enclose the area of work.
- .2 Make all gates lockable and provide keyed padlocks.

- .3 Obtain Departmental Representative's approval beforehand of location and layout of all temporary fence enclosures.
- .4 Provide warning signs affixed to all fenced areas, identifying those enclosed areas as "Construction Zones" with access restricted to only those persons authorized by General Contractor.
- .5 Make all gates lockable and provide keyed padlocks.
- .6 Obtain Departmental Representative's approval beforehand of location and layout of all temporary fence enclosures.

1.8 INTERIOR DUST CONTROL AND DUST BARRIERS

- .1 Control creation and spread of dust and dirt to building interior and in particular to areas within premises still under use by occupants.
- .2 Develop and implement a dust/dirt control plan, addressing effective measures to carry out work with least amount of dust/dirt being created and propagated.
  - .1 Carefully evaluate the type of work to be undertaken and the physical layout of each work area on site.
  - .2 Provide specifically tailored strategy for each work area.
  - .3 Pre-determine location and placement of dust barriers to confine resulting dust/dirt to immediate work area.
  - .4 Inform Departmental Representative of the proposed dust/dirt control measures to be followed at each work area and for each major dust/dirt generating activities. Obtain Departmental Representative's approval before proceeding with work.
- .3 Meager attempts at controlling dust/dirt will

not be tolerated. Failure to provide effective dust/dirt control during work and to perform satisfactory cleaning thereafter will result in Departmental Representative to proceed and obtain a separate cleaning service agency to perform cleaning to tenant's satisfaction with cost for such services being charged against this Contract in the form of financial holdbacks.

1.9 SANITARY FACILITIES

- .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.

1.10 POWER

- .1 Power supply is available for construction usage.
  - .1 Make arrangements for use of such services through the Departmental Representative.
- .2 Departmental Representative will designate and approve each location of existing power source to which connections can be made to obtain temporary power service.
- .3 Connect to existing power supply in accordance with Canadian Electrical Code.
  - .1 Make arrangements for the use of such services through the Departmental Representative.
  - .2 Departmental Representative will designate and approve each location of existing power source to which connections can be made to obtain temporary power service.
  - .3 Connect to existing power supply in accordance with Canadian Electrical Code.

- .4 Provide and pay all costs to supply and install temporary cabling, panel boards, switching devices and other equipment as required to connect into power source, provide adequate ground fault protection and extend power supply from existing source to work areas. Perform work and make all connections in accordance with the Canadian Electrical Code, in compliance with the federal and provincial Occupational Health and Safety Regulations as specified in section 01 35 29 and to lockout requirements specified in section 01 35 25.
- .5 Provide and maintain temporary lighting to conduct work. Ensure illumination level is not less than [162]lux in all locations.

1.11 WATER SUPPLY

- .1 Limited water supply is available from domestic line in existing building and will be provided for construction usage at no cost. Provide and pay all costs associated with the hook-up, piping, backflow prevention, etc., related to the use and transportation to the work area. Make arrangements through the Departmental Representative.
- .2 Water is not available from the Fire Protection System and hook up to fire hydrants is not permitted.

1.12 SCAFFOLDING

- .1 Design, construct and maintain scaffolding in rigid, secure and safe manner in accordance with CAN/CSA-S269.2-M87 (R2003).
- .2 Erect scaffolding independent of walls. Remove when no longer required.

1.13 HEATING AND VENTILATING

- .1 Supply, install and pay for costs of temporary heat and ventilation used during

construction, including costs of installation, fuel, operation, maintenance and removal of equipment. Use of direct-fired heaters discharging waste products into work areas will not be permitted.

- .2 Provide temporary heat and ventilation in enclosed areas as required to:
  - .1 Facilitate progress of work.
  - .2 Protect work and products against dampness and cold.
  - .3 Prevent moisture condensation on surfaces.
  - .4 Provide ambient temperatures and humidity levels for storage, installation and curing of materials.
  - .5 Provide adequate ventilation to meet health regulations for safe working environment.
  
- .3 Ventilating:
  - .1 Prevent accumulations of dust, fumes, mists, vapors or gases in areas occupied during construction.
  - .2 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
  - .3 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
  - .4 Ventilate storage spaces containing hazardous or volatile materials.
  - .5 Ventilate temporary sanitary facilities.
  - .6 Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.
  
- .4 Maintain strict supervision of operation of temporary heating and ventilating equipment to:
  - .1 Conform with applicable codes and

standards.

- .2 Enforce safe practices.
- .3 Prevent abuse of services.
- .4 Prevent damage to finishes.
- .5 Vent direct-fired combustion units to outside.

1.14 CONSTRUCTION  
SIGN AND NOTICES

- .1 Contractor or subcontractor advertisement signboards are not permitted on site.
- .5 Safety and Instruction Signs and Notices:
  - .1 Signs and notices for safety and instruction shall be in both official languages or commonly understood graphic symbols conforming to CAN3-Z321-96 (R2006).
- .6 Maintenance and Disposal of Site Signs:
  - .1 Maintain approved signs and notices in good condition for duration of project and dispose of off site on completion of project or earlier if directed by Departmental Representative.

1.15 REMOVAL OF  
TEMPORARY  
FACILITIES

- .1 Remove temporary facilities from site when directed by Departmental Representative.

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- 1.1 GENERAL .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 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.
- 1.2 MATERIALS .1 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- 1.3 CLEANING DURING CONSTRUCTION .1 Maintain work areas in a tidy condition, free from accumulations of waste material and debris. Clean areas on a daily basis.
- .2 Remove waste materials, and debris from site on a minimum weekly basis.
- .3 Provide dust barriers, dividers, seals on doors and employ other dust control measures as required to ensure that dust and dirt, generated by work, are not transmitted to existing areas of building. Should dust/dirt migrate into occupied areas of building, employ such means as may be necessary to immediately clean all contaminated surfaces to the satisfaction of the Departmental Representative.
- .4 See Section 01 50 00 for requirements on dust control and for erection of dust partitions.
- 1.4 FINAL CLEANING .1 In preparation for acceptance of the completed work perform final cleaning.

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- 1.1 SECTION INCLUDES .1 Administrative procedures preceding inspection and acceptance of Work by Departmental Representative.
- 1.2 RELATED SECTIONS .1 Section 01 78 00 - Closeout Submittals.
- 1.3 INSPECTION AND DECLARATION .1 Contractor's Inspection: Coordinate and perform, in concert with subcontractors, an inspection and check of all Work. Identify and correct deficiencies, defects, repairs and perform outstanding items as required to complete work in conformance with Contract Documents.
- .1 Notify Departmental Representative in writing when deficiencies from Contractor's inspection have been rectified and that Work is deemed to be complete and ready for Departmental Representative's inspection of the completed work.
- .2 Departmental Representative's Inspection: Accompany Departmental Representative during all substantial and final inspections of the Work.
- .1 Address defects, faults and outstanding items of work identified by such inspections.
- .2 Advise Departmental Representative when all deficiencies identified have been rectified.
- .3 Note that Departmental Representative will not issue a Certificate of Substantial Performance of the work until such time that Contractor performs following work and turns over the specified documents:
- .1 Project record as-built documents;
- .2 Final Operations and Maintenance manuals;
- .3 Maintenance materials, parts and tools;

- .4 Compliance certificates from applicable authorities;
- .4 Correct all discrepancies before Departmental Representative will issue the Certificate of Completion.

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- 1.1 SECTION .1 Project Record Documents.  
INCLUDES
- 1.2 RELATED .1 Section 01 14 10 - Scheduling and Management  
SECTIONS of Work.
- .2 Section 01 33 00 - Submittal Procedures
- .3 Section 01 77 00 - Closeout Procedures
- 1.3 PROJECT RECORD .1 Departmental Representative will provide 2  
DOCUMENTS white print sets of contract drawings and 2  
copies of Specifications Manual specifically  
for "as-built" purposes.
- .2 Maintain at site one set of the contract  
drawings and specification to record actual  
as-built site conditions.
- .3 Maintain up-to-date, real time as-built  
drawings and specifications in good condition  
and make available for inspection by the  
Departmental Representative upon request.
- .4 As-Built Drawings:
- .1 Record changes in red ink on the prints.  
Mark only on one set of prints and at  
completion of work, neatly transfer  
notations to second set (also by use of  
red ink).
- .2 Submit both sets to Departmental  
Representative prior to application for  
Certificate of Substantial Performance.
- .3 Stamp all drawings with "As-Built  
Drawings". Label and place Contractor's  
signature and date.
- .4 Show all modifications, substitutions  
and deviations from what is shown on the  
contract drawings or in specifications.
- .5 Record location of any potential/actual  
hydrocarbon contamination identified  
during the work.

- .5 As-built Specifications: legibly mark in red each item to record actual construction, including:
- .6 Maintain As-built documents current as the contract progresses. Departmental Representative will conduct reviews and inspections of the documents on a regular basis. Failure to maintain as-builts current and complete to satisfaction of the Departmental Representative shall be subject to financial penalties in the form of progress payment reductions and holdback assessments.

1.4 REVIEWED  
SHOP DRAWINGS

- .1 Provide a complete set of all shop drawings reviewed for project to incorporate into each copy of the Operations & Maintenance manuals.
- .2 Submit full sets at same time and as part of the contents of the Operation and Maintenance manuals specified.

1.5 OPERATIONS &  
MAINTENANCE MANUAL

- .1 O&M Manual - Definition: an organized compilation of operating and maintenance data including detailed technical information, documents and records describing operation and maintenance of individual products or systems as specified in individual sections of the specifications.
- .2 Manual Language: final manuals to be in English language.
- .3 Number of copies required:
  - .1 Submit 2 interim copies of the manual for review and inspection by Departmental Representative. Make revisions and additions as directed and resubmit.
  - .2 Upon review and acceptance by Departmental Representative, submit 3 final copies. Interim copies are not to be considered as part of the final copies

unless they have been fully revised and are identical to the final approved version.

- .4 Submission Date: submit complete operation and maintenance manual to Departmental Representative 3 weeks prior to application for Certificate of Substantial Performance of the work.
- .5 Binding:
  - .1 Assemble, coordinate, bind and index required data into Operation and Maintenance Manual.
  - .2 Use vinyl, hard covered, 3 "D" ring binders, loose leaf, sized for 215 x 280 mm paper, with spine pocket.
  - .3 Where multiple binders are needed, correlate data into related consistent groupings.
  - .4 Identify contents of each binder on spine.
  - .5 Organize and divide data following same numerical system as the section numbers of the Specification Manual.
  - .6 Dividers: separate each section by use of cardboard dividers and labels. Provide tabbed fly leaf for each individual product and system and give description of product or component.
  - .7 Type lists and notes. Do not hand write.
  - .8 Drawings, diagrams and manufacturers' literature must be legible. Provide with reinforced, punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- .6 Manual Contents:
  - .1 Cover sheet containing:
    - .1 Date submitted.
    - .2 Project title, location and project number.
    - .3 Names and addresses of Contractor, and all Sub-contractors.

- .2 Table of Contents: provide full table of contents in each binder(s), clearly indicate which contents are in each binder.
- .3 Copy of approval documents and certificates issued by Inspection Authorities.
- .4 Copy of reports and test results performed by Contractor as specified.
- .7 Shop drawings:
  - .1 Include complete set of reviewed shop drawings into each copy of the operations and maintenance manual.
  - .2 Fold and bind material professionally in a manner that corresponds with the specification section numbering system.