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**Core 0A1 / Noyau 0A1**  
**Gatineau, Québec K1A 0S5**

**SOLICITATION AMENDMENT**  
**MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

This document contains a Security Requirement / Ce document comporte une exigence en matière de sécurité

**Vendor/Firm Name and Address**  
**Raison sociale et adresse du**  
**fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**  
Construction Services Division/Division des services de construction  
11 Laurier St./11 Rue Laurier  
3C2, Place du Portage  
Phase III  
Gatineau, Québec K1A 0S5

<b>Title - Sujet</b> DIESEL TANKS REPLACEMENT	
<b>Solicitation No. - N° de l'invitation</b> EP077-141774/A	<b>Amendment No. - N° modif.</b> 004
<b>Client Reference No. - N° de référence du client</b> 20141774	<b>Date</b> 2014-01-13
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$FG-350-64022	
<b>File No. - N° de dossier</b> fg350.EP077-141774	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2014-01-21</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Eastern Standard Time EST
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Séguin, Martine	<b>Buyer Id - Id de l'acheteur</b> fg350
<b>Telephone No. - N° de téléphone</b> (819) 956-4975 ( )	<b>FAX No. - N° de FAX</b> (819) 956-8335
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> Constitution Building / Edifice Constitution 305 Rideau Street / 305 rue Rideau Ottawa, Ontario	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

Solicitation No. - N° de l'invitation

EP077-141774/A

Client Ref. No. - N° de réf. du client

20141774

Amd. No. - N° de la modif.

004

File No. - N° du dossier

fg350EP077-141774

Buyer ID - Id de l'acheteur

fg350

CCC No./N° CCC - FMS No/ N° VME

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### **Amendment No.004**

**This amendment is being raised to issue Addendum No. 002**

### **ADDENDUM No.002**

**ADDENDUM No.:**      **002**

**Project Number:**      **R.054303.003**

**The following changes in the bid documents are effective immediately. This addendum will form part of the contract documents.**

**SPECIFICATIONS**

- 1      Section **33 56 13** (Part of Division 33) is deleted in its entirety and replaced with the following.

## **1 GENERAL**

### **1.01 RELATED REQUIREMENTS**

- .1 Section 21 05 01 - Common Work Results for Mechanical
- .2 Section 23 05 05 - Installation of Pipework
- .3 Section 23 82 19 - Fan Coil Units

### **1.02 REFERENCES**

- .1 Department of Justice Canada (Jus):
  - .1 Canadian Environmental Protection Act, 1999 (CEPA)
  - .2 CEPA-SOR/2008-197, Storage Tank System for Petroleum Products and Allied Petroleum Products Regulations
- .2 Canadian Council of Ministers of the Environment (CCME):
  - .1 CCME-PN1326-2003 - Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products
- .3 Canadian Standards Association (CSA)/CSA International:
  - .1 CAN/CSA-B139-09, Installation Code for Oil Burning Equipment, including Update No. 1 (2010)
- .4 Underwriters' Laboratories of Canada (ULC):
  - .1 CAN/ULC-S602-07 - Aboveground Steel Tanks for Fuel Oil and Lubricating Oil
  - .2 CAN/ULC S601-07 - Standard for Shop Fabricated Steel Aboveground Tanks for Flammable and Combustible Liquids
  - .3 CAN/ULC-S661-10 - Standard for Overfill Protection Devices for Flammable and Combustible Liquid Storage Tanks
  - .4 CAN/ULC-S663-11 - Standard for Spill Containment Devices for Flammable and Combustible Liquid Aboveground Storage Tanks
  - .5 ULC/ORD-C180-97, Liquid Level Gauges and Indicators for Fuel Oil and Lubricating Oil Tanks
- .5 Canadian Commission on Building Codes and Fire Codes:
  - .1 National Fire Code of Canada (NFCC) 2010

### **1.03 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Indicate details of construction, appurtenances, installation and leakage detection system.
- .3 Shop drawings to detail and indicate following as applicable to

project requirements. Submit manufacturers' product data to supplement shop drawings.

- .1 Size, materials and locations of lifting lugs.
  - .2 Tanks capacity.
  - .3 Size and location of fittings.
  - .4 Environmental compliance package accessories.
  - .5 Decals, type size and location.
  - .6 Accessories: provide details and manufacturers product data.
  - .7 Finishes.
  - .8 Electronic accessories: provide details and manufacturers product data.
  - .9 Piping, valves and fittings: type, materials, sizes, piping connection details, valve shut-off type and location, demonstrating compliance with specified standards as well as Federal and Provincial regulations.
  - .10 Spill containment: provide description of methods and show sizes, materials and locations for collecting spills at connection point between storage tank system and delivery truck meeting the requirements of CAN/ULC-S663-11, included under References above.
  - .11 Anchors: description, material, size and locations.
  - .12 Size and location of site pads.
  - .13 Level gauging: type and locations, include:
    - .1 Reporting systems, types of reports and report frequency.
    - .2 Maximum number of tanks to be monitored.
    - .3 Number of probes required and sizes.
    - .4 Provide details and manufacturer's product data.
  - .14 Ancillary devices: provide details and manufacturer's product data.
  - .15 Leak detection system, type and locations, and alarm system.
  - .16 AST overfill-protection systems: provide details of design, type, materials and locations.
- .4 Provide maintenance data for tank appurtenances and leakage detection system for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

#### **1.04 WASTE MANAGEMENT AND DISPOSAL**

- .1 The removal of Tanks and Pipes of Diesel System, as well as the unused diesel in the Tanks and Pipes, under this Project, shall meet all the requirements of SOR/2008-197. More specifically, the person removing these articles must be authorized to do so in Ontario; must follow the required procedures and prepare the required records.
- .2 For all other construction materials, the waste should be handled using the following procedures.

- .3 Place materials defined as hazardous or toxic in designated containers.
- .4 Handle and dispose of hazardous materials in accordance with the CEPA, TDGA, Regional and Municipal regulations.
- .5 Dispose of unused paint or coating material at an official hazardous material collections site as approved by Departmental Representative.
- .6 Do not dispose of unused paint material into sewer system, into streams, lakes, onto ground or in other location where it will pose health or environmental hazard.
- .7 Fold up metal banding, flatten and place in designated area for recycling.

## **2 PRODUCTS**

### **2.01 TANKS: SECONDARY CONTAINMENT**

- .1 Two Double-wall Tanks placed entirely within dyked area, for permanent installation, and one Double-wall Tank for Temporary installation. The Permanent Tanks shall be of Horizontal Aboveground Storage Tank (AST) type, as per CAN/ULC-S601-07, and various fittings, connecting pipes and their installation shall meet the requirements of SOR/2008-197 and other Standards indicated under References. The interstitial space between the two walls shall have vacuum, created during manufacture of Tanks, which can be read by appropriate gauges. The Temporary Tank shall also be of Horizontal AST type, as per CAN/ULC-S602-07. In addition to the two Permanent and one Temporary double-wall Tanks described above, one double-wall Tank for Temporary installation. This Tank also shall be of Horizontal Aboveground Storage Tank (AST) type, as per CAN/ULC-S601-07.
- .2 One Permanent Tank, called Main Tank, for installation in the basement of the building, shall be of a capacity of about 2275 litres and be of steel construction. Another Permanent Tank, called Day Tank, for installation in the penthouse, shall be of capacity of about 935 litres and shall also be of steel construction. The Temporary Tank, called Temporary Day Tank, for installation in the penthouse, shall be of capacity of about 500 litres and shall also be of steel construction. The second Temporary Tank, called Transfer Tank, for installation in the basement, near the Permanent Tank, shall be of capacity 2710 litres and also be of steel construction. All Tanks shall be of the type regularly manufactured by the respective manufacturers, of about the indicated capacity.

## **2.02 ANCHORAGE**

- .1 Each Permanent Tank shall be anchored to the respective floor using four bolts, as indicated in Drawings to provide seismic restraint. The Temporary Tank shall be anchored to scaffolding that, in turn, shall be firmly fixed to the building walls. The Temporary Tank in the basement shall also be anchored to the floor using four bolts.

## **2.03 PIPING, VALVES AND FITTINGS**

- .1 In accordance with Section 23 11 13 - Facility Fuel Oil Piping.
- .2 Piping, located below product level to Pumps, shall be equipped with manual shut-off at storage tank.
- .3 Provide means for collecting spills at connection point between storage tank system and delivery truck. Include camlock in fill pipe.
- .4 Each Permanent Tank shall include a dip fitting, at the lowest point of respective Tank, for periodic inspection and/or removal of water and/or sludge collected in the Tank. This fitting shall enter the respective Tank from the top, as indicated in the Drawings.
- .5 Each Tank shall include various fittings as described below:
  - .1 One fitting, for filling the Tank, shall enter from the top of the Tank and end near its bottom. The fitting for the Main Tank shall include an overfill prevention valve.
  - .2 One fitting for measuring the level of diesel, in respective Tank, including a level gauge and a local level indicator.
  - .3 Each Tank shall include two emergency vents, complete with one pressure-relief valve each, vented outdoors, as indicated in Drawings. Emergency Vent #1 of each Tank shall be connected with the respective primary Tank space near its top. Emergency Vent #2 of each Tank shall be connected with the interstitial space of respective Tank near its top.
  - .4 One fire-fuse valve in the pipe supplying oil to Transfer Pump, to stop the flow of oil from the Tank, in case of a fire near the Tank.
- .6 The Main Tank, to be installed in the basement, shall also include the following:
  - .1 A fitting for a Vent Pipe to outside, entering from the top of the Tank, and ending near its top.
  - .2 A fitting, entering from the top of the Tank and ending near its top, for connecting with the pipe bringing diesel being returned from the Day Tank in Penthouse.
  - .3 A fitting for supplying diesel to Pumps for pumping to Day Tank, entering from the top of the Tank and ending at about

- 150 mm from the bottom of the Tank.
- .4 One fitting for receiving the excess diesel pumped by Pumps, through a pressure relief valve, entering from the top of the Tank, ending near its bottom.
- .7 The Permanent Day Tank, to be installed in the Penthouse, shall also include:
  - .1 A fitting entering from the side of the Tank at an elevation representing the specified capacity of the Tank, for returning excess diesel to the Main Tank in the basement.
  - .2 A fitting for supplying diesel to the pump of Generator, from the Tank, entering from the top of the tank and ending at about 150 mm. from its bottom. It shall include an anti-siphon valve and a stop valve.
  - .3 The fitting, typically provided for vent connection, shall be plugged in the Day Tank.
  - .4 The pipe, for returning the excess pumped by the Generator pump, shall be connected with the inlet side of Diesel Cooler. The outlet side of the Diesel Cooler shall be installed in the Day Tank, entering from the top and ending near bottom, as indicated in the Drawings.
  - .5 A fitting for another level gauge that includes auxiliary switches for level control and alarms.
- .8 The Temporary Day Tank, to be installed in the penthouse, shall also include:
  - .1 A fitting for supplying diesel to the pump of Generator, from the Tank, entering from the top of the tank and ending at about 150 mm from its bottom. It shall include an anti-siphon valve and a stop valve.
  - .2 The pipe for returning the excess pumped by the Generator pump, shall be connected with the inlet side of Diesel Cooler, at its Temporary location. The outlet side of the Diesel Cooler shall be installed in the Day Tank, entering from the top and ending near bottom, as indicated in the Drawings.
- .9 The Temporary Transfer Tank, to be installed in the basement, would not need connections with any permanently installed pumps. It shall, however, include a filter for removal of sediment and water, from diesel, during transfer. A Temporary pump shall be used to transfer diesel from the existing Tanks to the Temporary Transfer Tank, in preparation for removal of existing Tanks. It shall also be used to Transfer diesel into the Permanent Tank in the basement.

## 2.04 LEVEL GAUGING

- .1 Tank level gauge and indicator, one each for the Permanent and Temporary Tanks, meeting requirements of ULC Standard ULC/ORD-C180-97, Liquid Level Gauges and Indicators for Fuel Oil and



Lubricating Oil Tanks.

- .1 Magnetic, direct reading device with 100 mm size dial.
- .2 Gauge and gauge openings: protected against liquid overflow and possible liquid and vapour release.
- .2 Tank level control for Main Tank.
  - .1 Vent Whistle mounted at the bottom of the Vent pipe, for indication of 90% full condition, during fill-up of the Main Tank by a Tanker.
  - .2 Fill-up pipe opening, located on ground floor, protected by a cover and padlock. It shall include camlock and a spill containment device.
- .3 Tank level control (Two Controls for Redundancy) for Permanent Day Tank.
  - .1 Electronic solid state tank level sensor and controller, meeting the requirements of CAN/ULC-S663-11, stated under References above, in addition to the gauge and indicator, described above. The controller shall include means of starting and stopping the Pumps in the basement, for transfer of diesel from Main Tank to Day Tank. It shall also include means for providing remote audio and visual alarms if the level of diesel in Day Tank falls to unacceptable point. The audio alarm shall consist of a loud buzzer and the visual alarm shall consist of a red flashing light. Both audio and visual alarms shall be integrated into the building automated system of alarms.
- .4 Leak detector: Main Tank and Permanent Day Tank.
  - .1 The Main Tank in basement and the Day Tank in penthouse shall be of double wall construction, with vacuum in the space between the two walls maintained at constant levels. Each system shall include a vacuum gauge and an indication of the normal pressure, on respective Tank, in bold letters.

## **2.05 CORROSION PROTECTION**

- .1 Steel storage tank systems.
- .1 Proper painting of all metallic components of the diesel storage system, using materials compatible with diesel.
- .2 Proper separation of metallic surfaces of pipes from the walls and floor at penetration points, using materials compatible with diesel.

## **2.06 OVERFILL AND SPILL CONTAINMENT**

- .1 The fill-pipe in the Main Tank shall include an overfill-prevention valve that automatically closes when the Tank gets 90% full, stopping the flow of diesel into the Tank.
- .2 The vent-pipe in the Main Tank shall include a whistle that indicates when the Tank gets 90% full, so that the tanker

operator can stop filling.

- .3 The fill-connection on ground floor shall include camlock device to support working of overfill prevention valve. It shall also include a spill containment device to collect any spill caused during filling operation.

## **2.07 TANK BOTTOM WATER**

- .1 A dip opening installed in each Tank, entering from top, for inspection and removal of water and sediment, as required. It shall be located near the top of respective lowest point of bottom of each Tank.

## **2.08 SPILLS, OVERFILLS AND STORM RUNOFF WATER**

- .1 Withdrawal of existing diesel Tanks from service and their removal from site; fabrication of New Tanks and their installation, together with associated items, and subsequent operation are governed by SOR/2008-197, Storage Systems for Petroleum Products and Allied Petroleum Products Regulation, issued by Environment Canada. SOR/2008-197 specifies the minimum requirements, which along with other provisions which specifically forbid [in 14.(7)] first transfer of products (diesel) into the system before complying with applicable requirements. It also requires [in 15.(2)] that the product (diesel) transfer areas are designed (and built) to contain spills that (may) occur during transfer process.

## **3 EXECUTION**

### **3.01 INSTALLATION**

- .1 Install tanks in accordance with CAN/CSA-B139, SOR/2008-197, CCME PN1326 and manufacturer's recommendations. In case of any conflict in these requirements, the more stringent requirement shall apply.
- .2 Position tanks using lifting lugs and hooks, and where necessary use spreader bars. Do not use chains in contact with tank walls.
- .3 Install tanks using licensed, trained and certified installers to do so in the Province of Ontario.
- .4 Provide certification of installation to Departmental Representative.

### **3.02 FIELD QUALITY CONTROL**

- .1 Verify that the vacuum pressure, indicated by the gauge on the interstitial space of respective Tank, indicates the same as that set by the manufacturer.

### **3.03 TOUCH-UP**

- .1 Where coating is damaged, touch-up with original coating material.

### **3.04 LEVEL GAUGE SYSTEM**

- .1 Provide leak and vapour proof caulking at connections, using diesel compatible material.
- .2 Shield capillary and tubing connections in heavy duty 50 mm polyethylene pipes.
- .3 Calibrate system.

### **3.05 LEAK DETECTION SYSTEM**

- .1 Install in accordance with manufacturer's recommendations.

**END OF SECTION**