



Matériel and Procurement Services  
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**September 16, 2015**

**Subject: Invitation to Tender: FP802-150134**

**Title: Construction Requirement for Fuel Storage Tank Replacement on Green Island, Fortune Bay, Newfoundland**

**ADDENDUM: NO. 2**

Further to the above mentioned Invitation to Tender documentation previously posted on the Government Electronic Tendering Site (GETS), BuyandSell.gc.ca, Addendum (#2) is hereby issued.

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Q1) Detail 3 calls up a 300 mm thick layer of compacted granular fill. However, there is no material specification or gradation given for the fill material. Can you please provide me with the information?

A1) Granular fill shall be "Class A"

Q2) Please confirm the compaction requirements for the granular fill mentioned in item 1 above.

A2) Compact to 95% Standard Proctor Density

Q3) There is no specification given for the concrete pad. Please confirm concrete mix design requirements, i.e. durability and Class of exposure, minimum compressive strength, w/c ratio, air content, slump...etc.

A3) 35MPa Compressive Strength, 75mm maximum slump, 20mm aggregate, 6% +/-1% air entrainment by volume.

Q4) It was noted to our attendee during the site visit that the new Oil Spill Response Kit is NOT required. Please confirm.

A4) Confirmed, the new Oil Spill Response Kit does not require.

Q5) The Pipe support detail calls up a Type 1 granular fill. Please confirm material specifications and/or gradation limits for this material.

A5) Granular fill shall be "Class A".

Q6) Detail 5 references 10M rebar in the concrete pad. Please confirm that this note is corrected.

A6) Note is confirmed as correct.

Q7) Please confirm the thickness of the required neoprene isolator gasket material.

A7) The thickness of the required neoprene isolator gasket material is 3mm.

Q8) Sonotube @ 150 mm appears to be undersized for a 125mm X 125mm plate. Please clarify.

A8) Increase the sonotube size to 200mm.

Q9) With regard to grounding for tanks, can we join ground cables with a clamp? The tank at the lighthouse keeper's house doesn't appear to have either ground wire.

A9) Contractor shall use pipe or beam clamps to bond ground conductors and tanks and ground rod clamps to bond electrodes and grounding conductors.

Contractor shall provide a new grounding system at the Caretaker's Cottage consisting of the following:  
One 19mm diameter x 3m long copper-clad grounding rod buried horizontally to 600mm or at bedrock. Grounding rod shall be bonded to the tank with #6AWG copper grounding wire. Trenches may be backfilled with the excavated soil or with class A granular fill.

Grounding rod shall be equal to ERICO 613400.

Ground rod clamp shall be equal to ERICO GC064.

Q10) What will be the dimensions for the new concrete tank pad at the house?

A10) The tank foundation pad dimensions will be determined based on the dimensions of the tank being provided. The length of the tank foundation must be at least the length of the new tank + 1000mm and the width must be at least equal to the diameter of the new tank.

Q11) Will core drilling the concrete wall be necessary or can we use a hammer drill with hydraulic cement?

A11) Upon further investigation on site, it has been determined that all penetrations will be through timber frame construction walls. Pipe penetrations through these walls shall be double-wrapped with a pipe wrap tape (Pasco Felt Pipe Wrap or approved equal) for the full length of the penetration. Walls shall be drilled 25mm diameter greater than the outside diameter of the pipe and wrap tape. Pipe shall be centered in drillings and gap shall be completely sealed with 100% silicone from min. 50mm inside wall cavity to outside wall surface. Penetrations through the generator building shall be 1000mm above finished grade and penetrations through the caretaker's cottage shall be through the sill plate (approx. 200mm above finished grade).

Q12) Will a secondary power/heat source is required for the facility?

A12) DFO will have day tank for the dwelling filled prior to any work being carried out. This tank will be replaced last.

Q13) How many days or hours can the lighthouse run on battery power?

A13) The light should last for 2 days on battery power that is supplied by the wind turbine.

Q14) Pipe support detail 4 is unclear with regards to the pipe stand support. Please clarify.

A14) Pipe supports shown on detail 4-H1 shall be 600mm high from top of concrete base to top of support.

Q15) Will there is a new fuel line from the furnace out, including a new filter?

A15) Replace all existing piping feeding the furnace back to the connection on the unit. Replace the existing filter with new General Filter model 1A-25A or approved equal.

Q16) Can accommodations be arranged on the island?

A16) That is to be arranged between the contractor and light keeper.

Q17) Trench detail is needed for new electrical cables being buried (new alarms). Please provide.

A17) New alarms are mechanical type and do not require wiring.

Q18) Can the Coast Guard flies the new large tank to the island?

A18) DFO will pay for and provide delivery of new tanks to the island by CCG helicopter.

Additional Clarification as follows:

Spill containment pan drain valves shall be installed in locations shown on typical details 3-H1 and 5-H1. These valves should be installed as far as possible to the left or right side of the spill pans. Spill pans shall be sloped towards the drain valves.

Thank you,

**Grace Chau**

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