Screening part 2 Form

Project Name: Sanikiluaq Fuel Facility Upgrades

CGS Project Number: 11-2001

NIRB has requested several documents and explanations in regards to the development of the project at Sanikiluaq Fuel Facility the document will be as follows:

As per the NIRB part 2 Form.

2. General project Information Requirements.

Project Coordinated and Maps.

The consultant has place the information on the drawings that are part of the specification.

Please refer to Appendix #1 Drawing C-002 The coordinate are in UTM system.

The North East corner it show the N: 6 267 983 279 E: 609 648 657

The North West corner it show: N: 6 267 960 638 E: 609 676 646

The South East Corner it show: N: 6 267 904 756 E: 609 585 134

The South West Corner it Show: N: 6 267 882 115 E: 609 613 123

As part of Appendix #1 is an aero picture with the coordinate by quadrant.

Included is an aero picture from the tender and specification showing the Hamlet of Sanikiluaq and the location of the Fuel Facility, the Harbor, and Airstrip.

From Screening Part 2 Form page 2.

4. ***Map of the project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife and wildlife habitat.***

According to the information obtained from Google maps the distance from the existing tank farm to the water lake is approx. 300 to the South of the tank farm.

There is an second body of water this is located much higher that the tank farm the body of water is located about 350 m from to the North East of the tank farm

The actual location is on a picture on the specification Drawing G-001 for the tender package. Appendix #1

From Screening Part 2 Form page 2.

Project General Information

5. ***Discuss the need and purpose of the proposed project.***

Sanikiluaq has run out of fuel in the past few years and it requires additional tankage capacity. Currently Jet is stored in the facility the material is down graded and supply as P-50

The information below was provided as part of the tender documents

PART 1 - GENERAL
1.1 Work Under this Contract
.1 The Work under this contract consists of construction of the following:
SANIKILUAQ, NUNAVUT, TANK FARM UPGRADE
Sanikiluaq is a hamlet located in the Qikiqtaaluk region of Nunavut, more Specifically on Flaherty Island, one of the Belcher Islands archipelago in Hudson Bay, about 100 km west of the Province of Quebec. It has a population of Approximately 815 people (http://www.najuqsivik.com/gateway/sanikiluaq/) and is located at 56°32'34"N x 79°13'30"W.
The tank farm upgrade will generally include the following elements:

- Removal of four 86,500 liter horizontal tanks
- Repurpose of one Diesel horizontal tank for Jet A-1 storage
- Repurpose of one Diesel horizontal tank as a stand-by
- Relocation of the 2.4M liter tank, increase of its volume to 3M liters and modification from Jet A-1 fuel to Diesel storage (M = Millions)
- Relocation of one 500K liter Gasoline vertical tank
- Provision of a new 1M liter Jet A-1 fuel vertical tank
- Increase in the size of the secondary containment, both in footprint and in height, along with relevant modifications to HDPE liner, fencing, gate, etc.
- Relocation of dispenser buildings, operator's shelter and three containers, along with modifications to mechanical and electrical devices therein, concrete bases, bollards, fencing, etc.

6 ***Discuss alternatives to the project and alternative methods of carrying out the project, including the no-go alternative. Provide justification for the chosen option(s).***

This activity took place during the need assessment, the study was completed and by a Consultant with the recommendation to expand the capacity of the tank farm in order to accommodate the needs of the community, the proposal included the separation of Jet A1 from P-50 heating fuel.
In order to accommodate future expansion the tank area need to be expanded that is the reason to expand to the area adjacent to the dispenser by relocating the dispensers and berm 3 meter. That will provide the retention inside the berm area of the biggest tank plus 10% of the other tank as per current regulations.

7. ***Provide a schedule for all project activities.***

The renovation started during the spring and summer of 2014 by removing and replacing the resupply pipeline in order to comply with Environment Canada orders. The construction of the new tank and relocation of the South berm including the modification to the piping system is schedule to take place during the summer of 2015 if the weather condition permitted the painting of the facility will be completed by the end of summer otherwise will need to be postponed to next summer 2016.

8. ***List the acts, regulations and guidelines that apply to project activities.***

The next information is part of the contract that was listed and retained for the purpose of the contract with the contractor.

Documents the current edition at the date of closing of tenders shall apply

The following Codes and Standards govern specific portions of the Petroleum Products program and are referenced throughout this document. A comprehensive list of the applicable Codes and Standards, and their contact addresses, are provided in *Section 1.5 and 1.6*

Wherever Standards (i.e., CSA, ASTM and such) are referred to in this Contract

CCME, Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Products.

AASHTO American Association of State Highway and Transportation Officials
ACI American Concrete Institute
AIEE American Institute of Electrical Engineers
AISC American Institute of Steel Construction
AISI American Iron and Steel Institute
ANSI American National Standards Institute
API American Petroleum Institute
ASCE American Society of Civil Engineers
ASHRAE American Society of Heating Refrigerating and Air Conditioning Engineers
ASME American Society of Mechanical Engineers
ASTM American Society for Testing and Materials
AWS American Welding Society
CAN National Standard of Canada
CCA Canadian Construction Association
CEC Canadian Electrical Code
CEMA Canadian Electrical Manufacturers Association
CGA Canadian Gas Association
CGSB Canadian General Standards Board
CISC Canadian Institute of Steel Construction
CSA Canadian Standards Association
CSPI Corrugated Steel Pipe Institute
CUA Canadian Underwriters Association
CWB Canadian Welding Bureau
EEMAC Electrical and Electronic Manufacturers Association of Canada
IAO Insurance Advisory Organization
IEEE Institute of Electrical and Electronics Engineers
IES Illuminating Engineering Society
IPCEA Insulated Power Cable Engineers Association
ISO International Organization for Standardization

LEMA Lighting Equipment Manufacturers Association
NBC National Building Code of Canada
NEC National Electrical Code
NEMA National Electrical Manufacturers Association
NESC National Electrical Safety Code
NFC National Fire Code of Canada
NFPA National Fire Protection Association
OSHA Occupational Safety and Health Administration
SAE Society of Automotive Engineers
SPC Society for Protective Coatings
SSPC Steel Structures Painting Council (replaced by SPC)
ULC Underwriters Laboratories of Canada
WSCC Worker's Safety and Compensation Commission

Government Agencies and Abbreviations
INAC Indian and Northern Affairs Canada
GN Government of Nunavut
CGS Community and Government Services
NIRB Nunavut Impact Review Board
NWB Nunavut Water Board
QEC Qulliq Energy Corporation
PPD Petroleum Products Division
DE Department of Environment

9. ***List the approvals, permits and licenses required to conduct the project.***

   In order to proceed the project requires the permit from the GN Electrical Department, It must be approved by the Financial Management Board (FMB). It needs to be approved by NIRB and Nunavut Water Board.

Transportation

12. Describe how the project site will be accessed and how supplies will be brought to site. Provide a map showing access route(s).

    The supply will be brought in by resupply ship with a combination of a barge the material will be part of the regular sealift to the community of Sanikiluaq.

13. If a previous airstrip is being used, provide a description of the type of airstrip (ice-strip/all-weather), including its location. Describe dust management procedures (if applicable) and provide a map showing location of airstrip.

    No airstrip require the use of commercial and schedule aircraft will be use to brought in the personnel and some consumable items for the renovation.

14. b. Discuss construction techniques.

The renovation of the facility will is composed by usage of gravel and sand material that would be provided by the Hamlet of Sanikiluaq since the Hamlet have a current quarry permit, cutting and welding of pipelines construction of a Jet A1 with the total capacity of 1 million liters, extension of a fencing moving relocation the dispensing facilities 3 meter from the current location by lifting. A small production of concrete for the new apron in front of the dispenser.

d. Describe dust management procedures.

This is not an issue the work is mainly mechanical.

Equipment

1. ***Provide a list of equipment required for the project and discuss the uses for the equipment.***
   The equipment for the renovation consists of:
   - Caterpillar Excavator.
   - Backhoe excavator
   - Welding Machines
   - Small ½ tone truck
   - 40 tonne Crane

2. ***If possible, provide digital photos of equipment.*** N/A

Water

21 Describe the location of water source(s), the water intake methods, and all methods employed to prevent fish entrapment. Provide a map showing the water intake locations.
There are two possible location the first one is a lake Approximately 350 meter from the up above tank farm the second location is the water lake at Approximately 300 meter

22. Describe the estimated rate of water consumption (m^3/day).
The amount of water required is 295 m^3 per day.

23. Describe how waste water will be managed. If relevant, provide detail regarding location of sumps, including capacity of sumps and monitoring.
The water will be draw from the lake by a hose then at some distance will be located a centrifugal pump with a engine as propulsion the set up will be on a contained are complete with sealed and lined.

24. If applicable, discuss how surface water and underground water will be managed and monitored.
The water Pump and motor will be monitor at all times by a person and continually meter the amount of water drawn

Waste Water (Grey water, Sewage, Other)

25. ***Describe the quantities, treatment, storage, transportation, and disposal methods for the following (where relevant):***
After the hydro test is completed the water will be process thru a filter to retain any material that may have been in contact with the water, then the water will be dispose thru a drainage channel that goes from the tank farm to the sea hose connection near to the sea.
None of the other point apply.

26. ***If the project proposal includes a landfill or landfarm, indicate the locations on a map, provide the conceptual design parameters, and discuss waste management and contact-water management procedures.***
None to be constructed or available in the community

None is required for the project

Fuel

27. ***Describe the types of fuel, quantities (number of containers, type of containers and capacity of containers), method of storage and containment. Indicate the location on a map where fuel is to be stored, and method of transportation of fuel to project site.***
N/A

28. ***Describe any secondary containment measures to be employed, including the type of material or system used. If no secondary containment is to be employed, please provide justification.***
The Tank Farm has a secondary containment it is composed of:
Compacted layer coarse gravel and sand approx. 150mm
Compacted fine gravel 40mm
Compacted Sand or smooth fine gravel 80mm
Impermeable Plastic Membrane 60mill
Layer of Sand 80mm
Geotextile membrane
Fine Layer gravel and sand 150mm

29. ***Describe the method of fuel transfer and the method of refuelling.***
The method to utilize is rigid welded pipeline.

30. ***Describe spill control measures in place.***
In the event of spill Petroleum product absorbent pad will be used

Workforce and Human Resources/Socio-Economic Impacts

31. ***Discuss opportunities for training and employment of local Inuit beneficiaries.***
The project requires to have a minimum 30% of Inuit works, it is the intention of the Contractor and CGS the minimum content is achieve during the contract is executed.

32. ***Discuss workforce mobilization and schedule, including the duration of work and rotation length, and the transportation of workers to site.***
The beneficiary's personnel preferable locals would be hired, some members of the community have show interest to work on the project.

33. ***Discuss, where relevant, any specific hiring policies for Inuit beneficiaries.***
As long as the person is capable to carry on with the job, and there is a job for those people the person will have the opportunity to work on the project.

Public Involvement/ Traditional Knowledge

34. ***Indicate which communities, groups, or organizations would be affected by this project proposal.***
The entire community one way or other will be affected, home owner, renters, and driver's operators. Hamlet machinery operator's private contractors.

35. ***Describe any consultation with interested Parties which has occurred regarding the development of the project proposal.***
The owner PPD and CGS including the consultant has conducted meeting with hamlet officials to acknowledge the renovation, Local fuel contractor has been fully informed the plan of the renovation.

36. ***Provide a summary of public involvement measures, a summary of concerns expressed, and strategies employed to address any concerns.***
The renovation is a direct result of the request by the community and the requirement to maintain the services necessary by Petroleum Product Division of CGS

37. ***Describe how traditional knowledge was obtained, and how it has been integrated into the project.***
During the design development and the need assessment members of the community requested information and provided ideas and solution for the project.

38. ***Discuss future consultation plans.***
The renovation is expected to last a minimum of ten years on the tank capacity, after year 2025 a plan to construct a new tank to expand tankage capacity at that time will be decided the type of tank and quantity required.

Table 1: Project Type and Information Required

Project Type	Type of Project Proposal	Information Request
6	*Pits and Quarries*	*Section C*

The Quarry materials necessary for the contract are provided by the Hamlet of Sanikiluaq at rate according to community charge out for industrial construction.

The Hamlet of Sanikiluaq has a Quarry permit.

Section I. Municipal and Industrial Development

1. ***Describe the business type, including public, private, limited, unlimited or other.***
   Community & Government Services (CGS) the funding provider for the renovation Petroleum Product Division (PPD) the agent acting on behalf of CGS, the Consultant Providing technical assistant to CGS, the Contractor the company hire to do the job.

2. ***Describe the activity (e.g. development of quarry, development of hydroelectric facility, bulk fuel storage, power generation with nuclear fuels or hydro, tannery operations, meat processing and packing, etc.).***
   The bulk fuel storage facility has been in operation at the current location since 2001 the facility requires an expansion in order to provide the fuel to sustain the community life. The facility need to have a new tank dedicated for Jet A1. The facility need to be upgraded in order to ply with new regulation by Environment Canada

3. ***Describe the production process or service provision procedures.***
   The re-supply pipeline that carries the fuel from the shore line to the tank farm requires to be upgraded, that will be installed on the surface with a new pipeline.
   A new tank will be installed at the tank farm to store Jet A1
   The tank area will be expanded in order to accommodate the new tank and future tank

4. ***Provide detailed information about the structure and/or building in which the activity will be conducted.***
   No new Building is required
   One new tank for Jet A1 will be constructed with the total Capacity of 1 million liters as per the specification on the contract.
   The tank area will be expanded to accommodate the new and future tank
   The re-supply pipeline will be upgraded to comply with regulation from Environment Canada

5. ***List the PPE (personal protective equipment) and tools to be used to protect personal health and safety.***
   Welding procedures and best practice will apply

6. ***Describe the firefighting equipment that are or will be installed.***
   Fire extinguisher will be located and available through the job site

7. ***Describe the noise sources, noise level in work area, technical measurements that will be adopted to abate the noise levels and regulatory requirements for noise abatement and noise levels.***
   The workers will be provided with ear protection plugs, the noise source will be engine for heavy equipment and welding equipment. None of them are to exceed normal level.

8. ***Describe the type of gaseous emission that will be produced during this activity. Include the allowable thresholds and mitigation measures.***
   N/A Not applicable

9. ***Describe odours that the activity might release and include corresponding allowable threshold. Describe mitigation measures if thresholds are exceeded.***
   N/A

10. ***Describe radiation sources that might be emitted during the activity. Include type and source and include mitigation measures. Also describe preventative measures for human exposure (i.e. PPE).***
    N/A

11. ***Discuss the employee safety and environment protection training program.***
    All personnel will be debrief on the danger of the job, only qualify and trained personnel will be allowed on the job site.

12. ***If the activity involves a bulk fuel storage facility, include drawings showing the bulk fuel storage facility location in proximity to natural water courses, high water marks, etc.***
    Please see appendix #1 for pictures and drawing of the facility.

13. ***If the activity involves the development of a new quarry or expansion of an existing quarry, complete Section C.***
    Quarry activity will be conducted by the Hamlet the quarry permit holder

Note: Several other points have been omitted they are not applicable to the job.