



NIRB Application for Screening #125420

Arviat Fuel Capacity Increase

Application Type: New

Project Type: Fuel

Application Date: 11/9/2018 9:13:20 AM

Period of operation: from 0001-01-01 to 0001-01-01

Proposed Authorization: from 0001-01-01 to 0001-01-01

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DETAILS

Non-technical project proposal description

English: Government of Nunavut (GN) Department of Community and Government Services (CGS) through the Petroleum Product Division (PPD) provide bulk fuel storage and distribution of Gasoline and Diesel (ULSDL) petroleum products for the community of Arviat, NU. PPD has identified that the current bulk fuel storage facility at Arviat is in need of expansion and code upgrades. The optimal option of the bulk fuel storage expansion in Arviat is to propose a new tank farm east of Arviat (location shown on map). This option will satisfy ULSDL (diesel) and gasoline demand in 20 years for fuel capacity projection. Four vertical tanks would be constructed; three ULSDL (20.8m Dia, 3333 m3 capacity) and one new gasoline (20.85 Dia, 3333 m3 capacity). The development of a new tank farm would require decommissioning the existing 920 m long resupply pipeline and Arviat Tank Farm Facility once the new resupply and tank farm facility is operational. A new dispenser and operator shelter building will be required with sloped roof design in accordance with NBC and PPD standards. Expected Operations Phase is 25 years.

French: Le ministère des Services communautaires et gouvernementaux du gouvernement du Nunavut, par l'intermédiaire de sa Division des produits pétroliers (DPP), assure le stockage en vrac et la distribution de l'essence et du diesel à très faible teneur en soufre (DTFTS) pour la localité d'Arviat, au Nunavut. La DPP a déterminé que l'installation de stockage actuelle de cette localité doit être agrandie et mise aux normes. L'option privilégiée pour accroître l'espace de stockage est la construction d'un nouveau parc de stockage à l'est d'Arviat (emplacement montré sur la carte). Ceci permettra de satisfaire la demande d'essence et de DTFTS dans 20 ans, selon les prévisions relatives à la capacité. Le projet comprend la construction de quatre réservoirs verticaux : trois pour le DTFTS (diamètre de 20,8 m, capacité de 3 333 m³) et un pour l'essence (diamètre de 20,85 m, capacité de 3 333 m³). Une fois le nouveau parc et les nouvelles installations de réapprovisionnement en service, il faudra déclasser le pipeline de réapprovisionnement de 920 m de long et le parc de stockage actuels d'Arviat. Le projet comprend aussi la construction d'un bâtiment pour les opérateurs et la distribution des produits, dont le toit en pente devra être conforme au Code national du bâtiment et aux normes de la DPP. Le parc devrait demeurer en exploitation pendant 25 ans.

[illegible]

Personnel

Personnel on site: 30

Days on site: 20

Total Person days: 600

Operations Phase: from 2023-05-31 to 2025-10-30

Operations Phase: from 2025-10-30 to 2048-10-30

Post-Closure Phase: from to

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
New Tank Farm	Fuel and chemical storage	Commissioners	N/A	N/A	Within the Hamlet of Arviat boundary
Existing Tank Farm	Site Cleanup/Remediation	Municipal	Existing tank farm site.	N/A	Within the Hamlet of Arviat boundary

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Arviat	Steve England	Hamlet of Arviat	2018-09-17
Arviat	Roxi Illnik	Hamlet of Arviat	2018-09-17

Authorizations

Indicate the areas in which the project is located:

Kivalliq

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Nunavut Water Board	Not yet applied.	Not Yet Applied		
Environment and Climate Change Canada	Not yet applied.	Not Yet Applied		
Transport Canada	Not yet applied.	Not Yet Applied		
Government of Nunavut, Department of Environment	Not yet applied.	Not Yet Applied		
Indigenous and Northern Affairs Canada	Not yet applied.	Not Yet Applied		
Fisheries and Oceans Canada	Not yet applied.	Not Yet Applied		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Water	Sealft materials for new tank farm and construction equipment.	
Land	Heavy equipment vehicles required for construction.	

Project accomodation types

Community

Material Use

Equipment to be used (including drills, pumps, aircraft, vehicles, etc)

Equipment Type	Quantity	Size - Dimensions	Proposed Use
30-ton boom truck			transporting material
Cat 320 excavator			
Girth Scaffolds	2		
Cat 950 loader			
L9000 dump truck	1		
Pick up trucks	2		
JLG 80 foot articulated boom			
500A welding machines	3		
300A welding machine	1		
multi-welders complete with welding leads and welding consumables	4		
dewatering pump	1		
4 inch water transfer pump	1		
hydrostatic pump	1		
375 CFM compressor	1		
Cat 267 skid steer	1		
pig launcher	1		clean the pipeline
2 inch fuel transfer pump	1		
3/4 inch fuel transfer pump	1		
hose fittings and fasteners			for temporary fuel hookup

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Diesel	fuel	3	3333000	9999000	Liters	Will meet and exceed foretasted fuel storage requirements in 20 years.
Gasoline	fuel	1	3333000	3333000	Liters	Will meet and exceed foretasted fuel storage requirements in 20 years.

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0		

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Information is not available				

Environmental Impacts:

The marshes in this area would need to be filled in to build the tank farm.

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

Description of Existing Environment: Physical Environment

Description of Existing Environment: Biological Environment

Description of Existing Environment: Socio-economic Environment

Miscellaneous Project Information

The existing lines will be decommissioned as follows: 1. The line will be excavated; 2. It will be drained, purged, cleaned, cut, bundled and stacked at a location specified by the Owner; 3. Pipe will be cut to be maximum 6 m length or as directed by the Engineer; 4. Valves, flexible connectors and usable equipment will be removed from the piping and turned over to Regional Petroleum Products Officer for future use or disposal; 5. The anodes and other cathodic protection will be removed; and 6. The excavated route will be reinstated to its original condition

Identification of Impacts and Proposed Mitigation Measures

Cumulative Effects

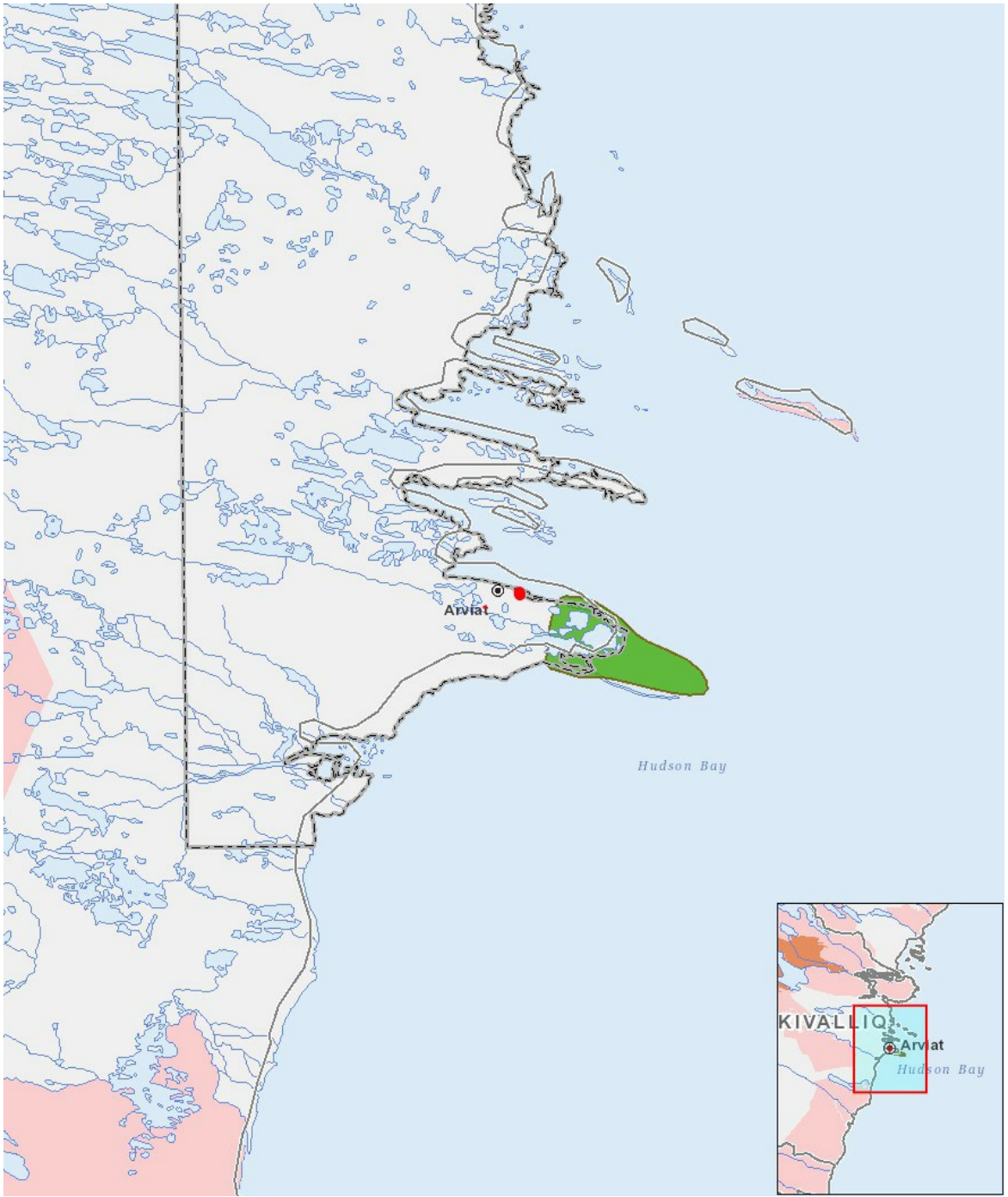
Impacts

Identification of Environmental Impacts

		PHYSICAL																			BIOLOGICAL									
		Designated environmental areas																			Wildlife, including habitat and migration patterns									
		Ground stability																			Birds, including habitat and migration patterns									
		Permafrost																			Aquatic species, incl. habitat and migration/spawning									
		Hydrology / Limnology																			Wildlife protected areas									
		Water quality																			SOCIO - ECONOMIC									
		Climate conditions																			Archaeological and cultural historic sites									
		Eschers and other unique or fragile landscapes																			Employment									
		Surface and bedrock geology																			Community wellness									
		Sediment and soil quality																			Community infrastructure									
		Tidal processes and bathymetry																			Human health									
		Air quality																												
		Noise levels																												
		Vegetation																												

(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

Project Location



List of Project Geometries

1	polyline	New Tank Farm
2	polyline	New Tank Farm
3	polyline	Existing Tank Farm
4	polyline	Existing Tank Farm
5	point	New Tank Farm Location