STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

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File: #2265.38.037
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April 5, 2011

Mr. Daniel Britton
Fairbanks Natural Gas, LLC
3408 International Way
Fairbanks, Alaska, 99701

Re: Revised Decision Document; Point MacKenzie Fairbanks Natural Gas Liquid Natural Gas (LNG) Plant Cleanup Complete with Institutional Controls Determination

Dear Mr. Britton:

This letter replaces a previous letter dated March 14, 2011 and contains revised information on property ownership.

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Point MacKenzie Fairbanks Natural Gas Liquid Natural Gas (LNG) Plant located near Wasilla, Alaska. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and no further remedial action will be required as long as the site is in compliance with established institutional controls (ICs).

This decision is based on the administrative record which is located in the offices of the ADEC in Anchorage, Alaska. This letter summarizes the decision process used to determine the environmental status of this site and provides a summary of the regulatory issues considered in the Cleanup Complete with ICs determination.

Introduction

Site Name and Location
Point MacKenzie Fairbanks Natural Gas LNG Plant
Mile 2 Ayrshire Road
Near Wasilla, Alaska

Name and Mailing Address of Contact Party:
Mr. Daniel Britton
Fairbanks Natural Gas, LLC
3408 International Way
Fairbanks, Alaska, 99701

ADEC Site Identifiers:
Hazard ID #25518
CS file # 2265.38.037

Regulatory authority under which the site is being cleaned up:
18 AAC 75

Background
Natural gas is piped to this facility from Cook Inlet where it is compressed, concentrated, and stored prior to being shipped by to Fairbanks for distribution. Soil contamination at the site is the result of releases of lubricating oil during the operation of equipment involved in this process..

Contaminants of Concern
During the various investigations at this site, soil and groundwater samples were analyzed for one or more of the following: diesel range organics (DRO), residual range organics (RRO), gasoline range organics (GRO), metals, glycols, and polynuclear aromatic hydrocarbons (PAHs). Based on the results of these investigations, the following contaminants of concern were identified:

- DRO
- RRO

Cleanup Levels
The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Table B2, Under 40 Inch Zone, Migration to Groundwater.

Contaminant	Site Cleanup Level (mg/kg)
• DRO	250
• RRO	11,000

Site Characterization and Cleanup
Investigations into the nature and extent of contamination at the site were conducted in 2005 and 2010. Based on the results of these investigations, hydrocarbon contamination was identified as the following areas: LNG Skid, Compressors Area, Amine Building, Fuel Storage Connex, and Former Garage. Remedial activities consisting of excavation and soil treatment were conducted at the site in September 2010. A total of 135 tons of impacted soil were successfully treated at Anchorage Soil Recycling from the above source areas.
In 2005 and 2010, soil samples were collected at the LNG Skid. DRO was detected up to 30,000 mg/kg; and RRO was detected up to 15,700 mg/kg. In September 2010, excavation was conducted at the impacted area to a maximum

depth of 6 feet below ground surface (bgs). Due to the presence of equipment and infrastructure, excavation was limited, and a vacuum truck and hand shovels were utilized to remove as much impacted material as was feasible. Confirmation samples collected from the bottom and sides of the excavation contained DRO up to 5,010 mg/kg at 6 feet bgs. RRO was not detected above the cleanup level.

The compressors area includes the North, South, and Booster compressors. Samples collected in this area in 2010 contained DRO up to 4,690 mg/kg at the Booster Compressor, and RRO up to 49,100 mg/kg in the same sample. In September 2010, excavation was conducted at the impacted areas to a maximum depth of 5.5 feet bgs. Due to the presence of equipment and infrastructure, excavation was limited, and a vacuum truck and hand shovels were utilized to remove as much impacted material as was feasible. Confirmation samples were collected from the bottom and sides of an excavation to remove a stained area. Samples results contained DRO up to 1,830 mg/kg, and RRO up to 20,100 mg/kg in the same sample collected 1 foot bgs. A sample from 3 feet bgs in the same location did not contain detectable concentrations of contaminants.

In 2005, DRO was detected up to 1,740 mg/kg at 2 feet bgs at the Amine Building. The 2010 excavation in this area removed soil to 3 feet bgs. Confirmation samples did not contain contaminants above cleanup levels.

In 2005 a sample collected from one foot bgs at the Fuel Storage Connex contained DRO up to 4,020 mg/kg; and RRO up to 19,400 mg/kg. The 2010 excavation at this area removed soil to 4.5 feet bgs. Confirmation samples did not contain contaminants above cleanup levels.

A sample collected in 2005 at 0.5 feet bgs at the Former Garage, contained DRO up to 964 mg/kg. The 2010 excavation at this area removed soil to 3 feet bgs. Confirmation samples did not contain contaminants above cleanup levels.

Because the deepest confirmation soil samples contained DRO above the migration to groundwater cleanup level, fate and transport modeling using SESOIL was conducted. Using conservative input parameters, the maximum potential depth of migration for the remaining contamination was estimated by the fate and transport model to be at 157 feet bgs. This result indicates the remaining contamination would not impact groundwater because groundwater in this area is at a depth of 215 feet bgs. Additionally samples from the onsite water well collected in 2005 and 2010 did not contain detectable concentrations of contaminants.

Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using ADEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 1.

Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Direct Contact with Surface Soil	De minimis Exposure	Hydrocarbon contaminated surface soil has been excavated from the site and any remaining surface contamination is de minimis in extent.
Direct Contact with Sub-Surface Soil	De minimis Exposure	Hydrocarbon contaminated subsurface soil has been largely excavated from the site and any remaining contamination is under buildings or adjacent to infrastructure and is covered with clean fill.
Inhalation-Outdoor Air	De minimis Exposure	The remaining contamination has low volatility and is covered by clean fill, which will mitigate exposure via this pathway.
Inhalation-Indoor Air	Pathway Incomplete	Occupied buildings are not present in impacted areas; remaining contamination is non-volatile and de minimis.
Groundwater Ingestion	Pathway Incomplete	Modeling and sampling indicate groundwater is not currently impacted, nor will it be impacted in the future.
Surface Water Ingestion	Pathway Incomplete	Surface water is not utilized as a drinking water source in this area
Wild Foods Ingestion	Pathway Incomplete	Wild foods are not collected in this area.
Exposure to Ecological Receptors	Pathway Incomplete	There are no complete exposure routes to ecological receptors at the site.

Notes to Table 1: "De minimis exposure" means that in ADEC's judgment receptors are unlikely to be affected by the minimal volume of remaining contamination. "Pathway incomplete" means that in ADEC's judgment contamination has no potential to contact receptors. "Exposure controlled" means there is an administrative mechanism in place limiting land or groundwater use, or a physical barrier in place that deters contact with residual contamination.

ADEC Decision
The ADEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Cleanup Complete- ICs determination subject to the following.

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, current ICs may not be protective and ADEC may require additional remediation and/or ICs. Therefore Fairbanks Natural Gas shall report to ADEC once every five years, or as soon as they become aware of any change in land ownership or use, if earlier. **The report can be sent to the ADEC project manager or electronically to DEC.ICUnit@alaska.gov.**

2. When contaminated material becomes accessible, it must be evaluated in accordance with an ADEC-approved Work Plan.

3. Any proposal to transport soil or groundwater off site requires ADEC approval in accordance with 18 AAC 75.325 (i). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.

4. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

This determination is in accordance with 18 AAC 75.380(d) and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

Appeal
Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 -18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 15 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

Please sign and return *Attachment A* to ADEC within 30 days of receipt of this letter. If you have questions about this closure decision, please contact the ADEC project manager, Bill O'Connell at (907) 269-3057

Approved By,

Linda Nuechterlein
Environmental Manager

Recommended By,

William O'Connell
Environmental Program Specialist

Attachment A: Cleanup Complete- ICs Agreement Signature Page
Attachment B: Site Figure

Attachment A: Cleanup Complete-ICs Agreement and Signature Page*

Fairbanks Natural Gas agrees to the terms of this Cleanup Complete with Institutional Controls determination as stated in this Decision Document dated **April 5, 2011** for Point MacKenzie Fairbanks Natural Gas LNG Plant. Failure to comply with the terms of this agreement may result in ADEC reopening this site and requiring further remedial action in accordance with 18 AAC 75.380(d).

_____

Signature of Authorized Representative, Title

_____

Printed Name of Authorized Representative, Title

For Internal Use Only

Hazard ID #25518
CS file # 2265.38.037

***Attention ADEC Administration Staff:** Please follow the procedure below after Attachment A is signed/returned to ADEC.

1. Log-in and Date Stamp *Attachment A*
2. Scan *and* Save to the appropriate electronic folder on the network Drive
3. File the hard copy in the appropriate project/site file Correspondence Folder (blue in Anchorage).
4. Provide the Correspondence folder (with the filed *Attachment A* hard copy) to the ADEC Project Manager so that the PM can update the CS database.

Attachment B: Site Figure