THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File No. 140.38.048

March 26, 2015

Mervin Gilbertson
Big State Logistics
3621 Royal Road
Fairbanks, AK 99707-7454

Re: Decision Document: Vehicle Rollover MP 83.5 Richardson Highway
Cleanup Complete Determination

Dear Mr. Gilbertson:

The Alaska Department of Environmental Conservation (ADEC) has reviewed the environmental records for the Vehicle Rollover MP 83.5 Richardson Highway site. This decision letter memorializes the site history, cleanup actions, and standard conditions for long-term site management. No further remedial action is required.

Site Name and Location:
Vehicle Rollover MP 83.5 Richardson Hwy
MP 83.5 Richardson Highway
17.5 Miles South of Copper Center
Copper Center, AK 99573

Name and Mailing Address of Contact Party:
Mervin Gilbertson
Big State Logistics
3621 Royal Road
Fairbanks, AK 99707-7454

DEC Site Identifiers:
File No: 140.38.048
Hazard ID: 4379

Regulatory Authority for Determination:
18 AAC 75

Site Description

The Vehicle Rollover MP 83.5 Richardson Highway site is located near milepost 83.5 along the Richardson Highway, which is approximately 17.5 miles south of Copper Center, Alaska. The site is located in a remote area and is bordered by the Richardson highway to the west, trees to the east, and low-lying vegetation to the north and south. A buried fiber-optic cable runs through the center of the site in a north-south direction, adjacent to the highway. The nearest surface water body is Pippin Lake, located about 0.5 mile to the south of the site. Groundwater is anticipated to be more than 50 feet below ground surface (bgs).

Background

On February 27, 2006 a tanker truck hauling roughly 14,000 gallons of diesel fuel crashed and rolled over near milepost 83.5 along the Richardson Highway. Initial responders drained the diesel from the tankers and also the trucks saddle tanks, which provides fuel to the truck. It was determined that no fuel spilled from the tankers. However, an estimated 250 gallons of diesel fuel released from the saddle tanks. It was also estimated that 1 pint of steering fluid and less than 10 gallons of coolant were released.

Alaska Resources and Environmental Services, Inc. (ARES), in coordination with the Preparedness and Emergency Response Program (PERP), removed and containerized 20.31 tons of impacted snow and soil on April 12, 2006 and immediately transported it to Organic Incineration Technology, Inc. (OIT) in Fairbanks for disposal.

PERP returned to the site on April 27, 2006 to collect characterization soil samples from the spill site. Four soil samples were collected from 10 to 18-inches bgs, and were submitted for analyses of one or more of the following: gasoline range organics (GRO), diesel range organics (DRO), and benzene, toluene, ethylbenzene, and xylenes (collectively known as BTEX). Results revealed a maximum concentration of GRO at 6,100 milligrams per kilogram (mg/kg), DRO at 6,780 mg/k, and benzene at 12.8 mg/kg, all of which exceed ADEC cleanup levels.

Contaminants of Concern

The following petroleum contaminants of concern, those above cleanup levels, were identified during the course of the site investigations summarized in the Characterization and Cleanup Activities section of this decision letter.

- Gasoline range organics (GRO)
- Diesel range organics (DRO)
- Benzene

Cleanup Levels

Benzene, GRO, and DRO were identified in soil above the Method 2 Migration-to-Groundwater (MTG) cleanup levels for the under 40-inch precipitation zone, established in 18 AAC 75.341(c) and (d), Tables B1 and B2.

Table 1 – ADEC Cleanup Levels

Contaminant	Soil – Ingestion (mg/kg)	Soil – Inhalation (mg/kg)	Soil – MTG (mg/kg)	Maximum Remaining Concentration (mg/kg)
GRO	1,400	1,400	300	*
DRO	10,250	12,500	250	**1,580**
Benzene	150	11	0.025	ND

MTG = migration to groundwater
mg/kg = milligrams per kilogram
ND = Analyte was not detected above the laboratory detection level.
bold = exceeds ADEC MTG cleanup level
* = Analysis of GRO was not performed for final excavation confirmation sampling.

Characterization and Cleanup Activities
An excavation was performed in June of 2006 to remove additional contaminated soil from the spill location. Excavation commenced to the maximum extent practicable, however, was limited by a fiber optic cable that ran through the middle of the excavation in a north-south direction. Excavation proceeded on both sides of the fiber-optic cable to 10 feet bgs. Approximately 115 cubic yards (cy) of impacted soil were removed and temporarily stockpiled onsite. Seven confirmation soil samples were collected from the base and sidewalls of the excavation and were analyzed for DRO and BTEX.

Following confirmation soil sampling activities, the excavation was backfilled with clean fill and the stockpiled soil was transferred to a more secure location near milepost 10.2 of the Edgerton Highway for land-farming and tilling activities.

One of the soil samples, which was collected near the fiber optic cable exhibited a concentration of DRO at 1,580 mg/kg which exceeds the ADEC MTG cleanup level. Further excavation surrounding the fiber optic cable was not feasible at the time of excavation. None of the other samples exhibited contaminants above ADEC MTG cleanup levels.

The land-farm was sampled in September 2008, October 2011, and again in June 2013. The most recent analytical results revealed that DRO, BTEX, and polynuclear aromatic hydrocarbons (PAHs) were not present above the ADEC MTG cleanup levels.

Cumulative Risk Evaluation
Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index of one across all exposure pathways.

Based on a review of the environmental record, ADEC has determined that residual contaminant concentrations do not pose a cumulative human health risk.

Exposure 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 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Contamination is not present in surface soil (0 to 2 feet bgs).
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination remains in the sub-surface, but is below direct contact cleanup levels.
Inhalation – Outdoor Air	De-Minimis Exposure	Contamination remains in the sub-surface, but is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Site is rural. There are no building present, and none expected in the future.
Groundwater Ingestion	Pathway Incomplete	Groundwater contamination is not present.
Surface Water Ingestion	Pathway Incomplete	Surface water contamination is not present.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Site is adjacent to the Richardson Highway. It is unlikely that foraging activities would take place.
Exposure to Ecological Receptors	Pathway Incomplete	There are no terrestrial or aquatic routes present.

Notes to Table 2: "De-Minimis Exposure" means that in ADEC's judgment receptors are unlikely to be affected by the minimal volume or concentration 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

This site will receive a "Closed" designation on the Contaminated Sites Database, subject to the following standard conditions.

Standard Conditions

1. Any proposal to transport soil or groundwater off-site requires ADEC approval in accordance with 18 AAC 75.325. 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.

2. 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 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 99811-1800, 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 99811-1800, 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.

If you have questions about this closure decision, please feel free to contact me at (907) 269-7691.

Sincerely,

Joshua Barsis
Environmental Program Specialist

cc: Jennifer Micolichek, ADOT&PF (via email)
RFA via email at dec.spar.cr@alaska.gov