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: 2621.38.004

December 12, 2017

Robert Johnston
AFCEC/CZOP
10471 20th Street, Suite 347
JBER, AK 99506-2201

Re: Decision Document: Nikolski RRS SS003 Spill/Leak No. 3 former AOC 3
Cleanup Complete Determination – Institutional Controls

Dear Mr. Johnston:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the SS003 Spill/Leak No. 3 site located at the former Nikolski Radio Relay Station (RRS), Nikolski, Alaska. Based on the information provided to date, it has been determined by ADEC 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 institutional controls are established in a timely manner, maintained, effective and no new information becomes available that indicates residual contamination poses an unacceptable risk.

This Cleanup Complete with Institutional Controls (ICs) determination is based on the administrative record for SS003 which is located in the offices of the ADEC in Anchorage, Alaska. This decision letter summarizes the site history, cleanup actions, regulatory decisions, and specific conditions required to effectively manage remaining contamination at this site.

Site Name and Location:
Nikolski RRS SS003 Spill/Leak No.3 former AOC 3
Nikolski, Alaska

Name and Mailing Address of Contact Party:
Robert Johnston
AFCEC/CZOP
10471 20th Street, Suite 347
JBER, AK 99506-2201

DEC Site Identifiers:
File No.: 2621.38.004
Hazard ID.: 130

Regulatory Authority for Determination:
18 AAC 75

Site Description and Background
The POL Pipeline site (SS003) consisted of an approximate 3-mile-long aboveground POL pipeline that supplied diesel fuel from the ASTs at the POL Tank Area (ERP Site SS004) to the two 20,000-gallon USTs

on High Hill (ERP Site TU019). During the 2001 RI, RRO (22,800 mg/kg) and DRO (59,800 mg/kg) were detected at the site exceeding regulatory cleanup levels. In 2007, the aboveground portions of the pipeline were cut and removed. Due to the severe slope of the terrain of SS003 and potential health and safety risks, the underground sections of the POL Pipeline were capped and remain in place.

Contaminants of Concern

During the site investigation and cleanup activities at this site, samples collected from soil, were analyzed for all the analytes listed here. Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern at this site:

- Diesel Range Organics (DRO)
- Residual Range Organics (RRO)

Cleanup Levels

DRO and RRO were detected in soil above the ingestion cleanup levels for the over 40-inch precipitation zone, established in 18 AAC 75.341(d), Table B2. Groundwater at SS003 is not considered to be a potential source of future drinking water, because groundwater has not been encountered in any borings at the site. In addition, if groundwater was present, it would be impacted by saltwater intrusion from Nikolski Bay. An approved Groundwater Use Determination for SS003 has been completed pursuant to 18 AAC 75.350 in 2002.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)
DRO	8,250[1]
RRO	8,300[1]

[1] – Ingestion pathway, Method 2

Characterization and Cleanup Activities

Characterization and cleanup activities conducted under the regulatory authority of the Contaminated Sites Program began in 1995. These activities are described below.

In 1995, as part of a preliminary assessment, three soil samples were collected near gate valves and analyzed for DRO. DRO was detected ranging from 74 mg/kg to 1,150 mg/kg. No visual evidence of stained soils was observed.

In 2000, as part of a site investigation, nine soil samples were collected and analyzed for gasoline range organics (GRO) and benzene, ethylbenzene, toluene, and total xylenes (BTEX). All results were below detection limits and no evidence of stained soils were observed.

In 2001, as part of remedial investigation, several soil samples were taken along accessible portions of the pipeline and analyzed for GRO, DRO and RRO. DRO and RRO were detected at concentrations exceeding 8,250 mg/kg and 8,300 mg/kg, respectively in four samples. A groundwater use determination was developed for site SS003 and approved in 2002 as an appendix to the final remedial investigation report.

In 2003, a baseline risk assessment was performed and the human health and ecological risk assessments concluded there was no risk from existing contamination for human or ecological receptors above applicable target values.

In 2007, pipeline demolition was performed. The aboveground section of the pipeline was cut and removed using manually operated power tools and equipment. Because of the steep slope of the hill and associated health and safety concerns, the underground section of the pipeline was not removed. Instead, the ends of the underground section of pipeline were capped to prevent water from passing through.

In 2015, excavations at SS003 in 2015 resulted in the removal, containerization, and disposal of 1,443.04 tons of contaminated soils. Excavations 1A, 3A, and 3B have met the site cleanup levels (SCLs) for the site; however, Excavation 2/1B contains soil which remains in exceedance of site SCLs. However, the Nikolski access road would need to be removed to complete full removal of contaminants at the site, which is not practicable. An estimated 278 tons of contaminated soil remains inaccessible due to the presence of the access road. The remaining contamination at the site is from residual range organics (RRO) at 7.0' below ground surface (bgs) 21,200 mg/kg, 6.5' bgs 22,800 mg/kg, 6.5' bgs 22,400 mg/kg and 6.0' bgs 27,000 mg/kg.

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. With just residual range organics (RRO) remaining at the site, a cumulative risk cannot be calculated and therefore, 18 AAC 75.325(g) in this case at SS003 is not applicable.

The site's current land use is a commercial / industrial setting with no groundwater use as drinking water due to saltwater intrusion and an 18 AAC 75.350 determination has been made which eliminates the groundwater pathway.

The ingestion exposure pathway for soil is controlled as the remaining contamination at the site is sub-surface and institutional controls are in place to prevent exposure to soil without prior DEC approval.

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 below ground surface).

Sub-Surface Soil Contact	Exposure Controlled	Contamination remains in the sub-surface, but existing road and land use controls limit exposure to contamination.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remains in the sub-surface, but weathered residual range organics do not pose an inhalation risk.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	No structures exist and weathered residual range organics do not pose an inhalation risk.
Groundwater Ingestion	Pathway Incomplete	18 AAC 75.350 determination has been approved. Groundwater is not used as a drinking water source.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water source in the vicinity of the site.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	Contamination is only present in the sub-surface and determined not to be risk to plants or animals.

Notes to Table 2: "Pathway Incomplete" means that in ADEC's judgment contamination has no potential to contact receptors. "Exposure Controlled" means there is an institutional control in place limiting land or groundwater use and there may be a physical barrier in place that prevents contact with residual contamination.

ADEC Decision

Petroleum contamination remains in sub-surface soil above levels suitable for unrestricted future use; however ADEC has approved soil cleanup levels, the establishment and use of land use controls to limit potential future exposure and risk to human health or the environment. A Notice of Environmental Contamination and Institutional Controls (NEC-IC) will be required to be recorded in the land records maintained by the Alaska Department of Natural Resources within one-hundred and eighty (180) days of AFCEC's receipt of this letter.

Groundwater has been determined to not be a drinking water source at this site and an 18 AAC 75.350 determination has been previously approved by ADEC. Therefore, ADEC has determined the residual soil contamination does not pose an unacceptable migration to groundwater concern.

Institutional controls necessary to support this closure determination will include:

- In the event that the remaining contaminated soil becomes accessible in the future, the land owner shall notify ADEC and characterize and, if determined necessary, cleanup the soil.

- The Air Force will provide notice to ADEC as soon as practicable, but no later than 10 days, after discovery of any activity that is inconsistent with the LUC requirements, objectives or controls, or any action that may interfere with the effectiveness of the LUCs. The Air Force will include in such notice a list of corrective actions taken or planned to address such deficiency or failure.

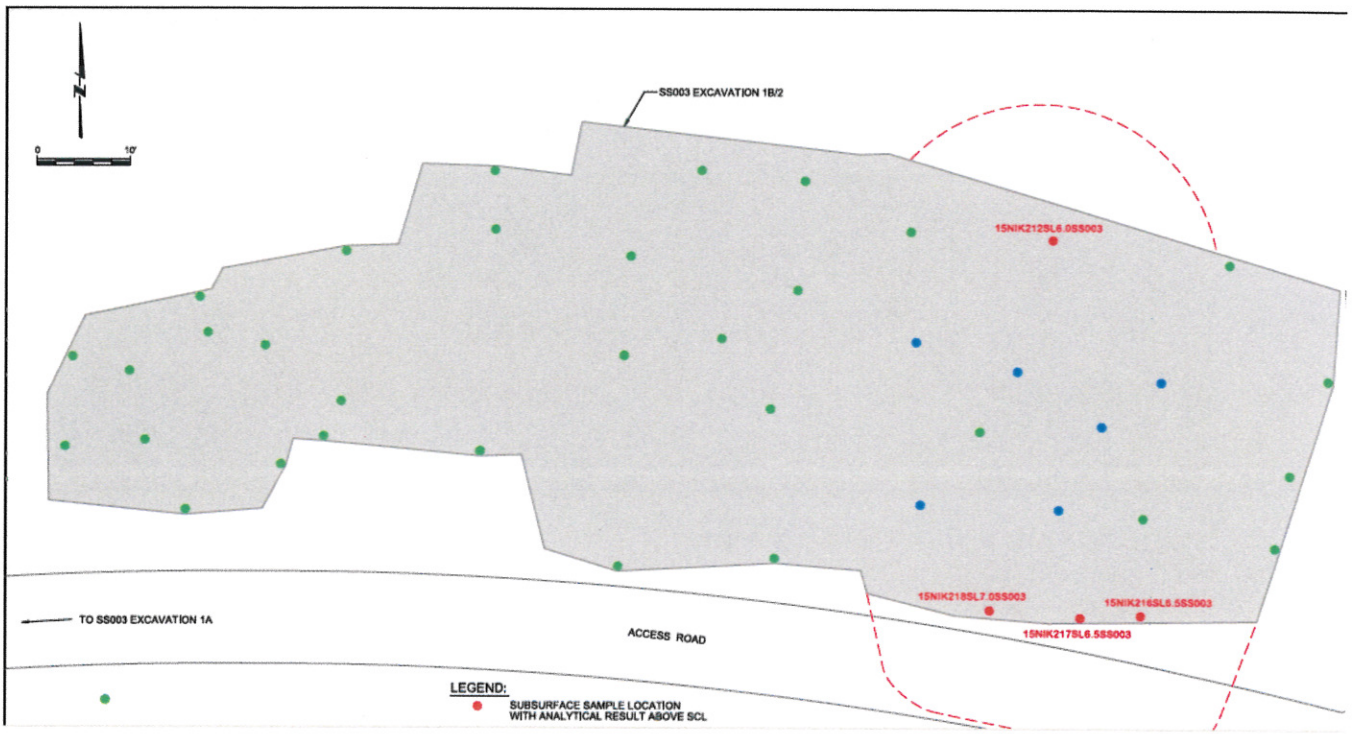
- The Air Force will obtain prior concurrence from ADEC to terminate the LUCs

Standard site closure conditions that apply to all sites include:

- ADEC approval is required prior to moving any soil off any site that is, or has been, subject to the site cleanup rules [see 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. In the future, if soil will be excavated, it must be characterized and managed following regulations applicable at that time and ADEC approval must be obtained before moving the soil off the property.

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



ADEC has determined the cleanup is complete as long as the institutional controls are properly implemented in a timely manner and no new information becomes available that indicates residual contamination may pose an unacceptable risk.

The ADEC Contaminated Sites Database will be updated to reflect the change in site status to "Cleanup Complete with Institutional Controls" and will include a description of the contamination remaining at the site.

The institutional controls will be removed in the future if documentation is provided that shows concentrations of all residual hazardous substances remaining at the site are below the levels that allow for unrestricted exposure to, and use of, the contaminated media and that the site does not pose a potential unacceptable risk to human health, safety or welfare, or to the environment. Standard conditions above will remain in effect after ICs are removed.

This determination is in accordance with 18 AAC 75.380 and does not preclude ADEC from requiring additional assessment and/or cleanup action if the institutional controls are determined to be ineffective or if new information indicates that contaminants at 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, 555 Cordova Street, Anchorage, Alaska 99501-2617, 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, PO Box 111800, 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) 269-7552 or email at louis.howard@alaska.gov.

Sincerely,

Louis Howard
Project Manager

cc: Kim DeRuyter via email