



PROPOSED PLAN FOR SITE SS003: PETROLEUM, OIL AND LUBRICANTS (POL) PIPELINE NIKOLSKI RADIO RELAY STATION, ALASKA

February 2012

United States Air Force

HOW CAN YOU PARTICIPATE?

You are encouraged to comment on this Proposed Plan.

The public comment period begins 16 February 2012 and ends 17 March 2012.

The USAF will accept written comments on the Proposed Plan during the public comment period.

A pre-addressed comment form is inserted into this Proposed Plan.

Comment letters must be postmarked by 18 March 2012 and should be submitted to:

Steve Hunt, Remedial
Project Manager
USAF 611th CES/CEAR
10471 20th Street, Suite 302
JBER, Alaska 99506
Email: Steve.Hunt@
elmendorf.af.mil

A public meeting will be held during the public comment period; please refer to the Community Participation section on Page 6 for detailed information.



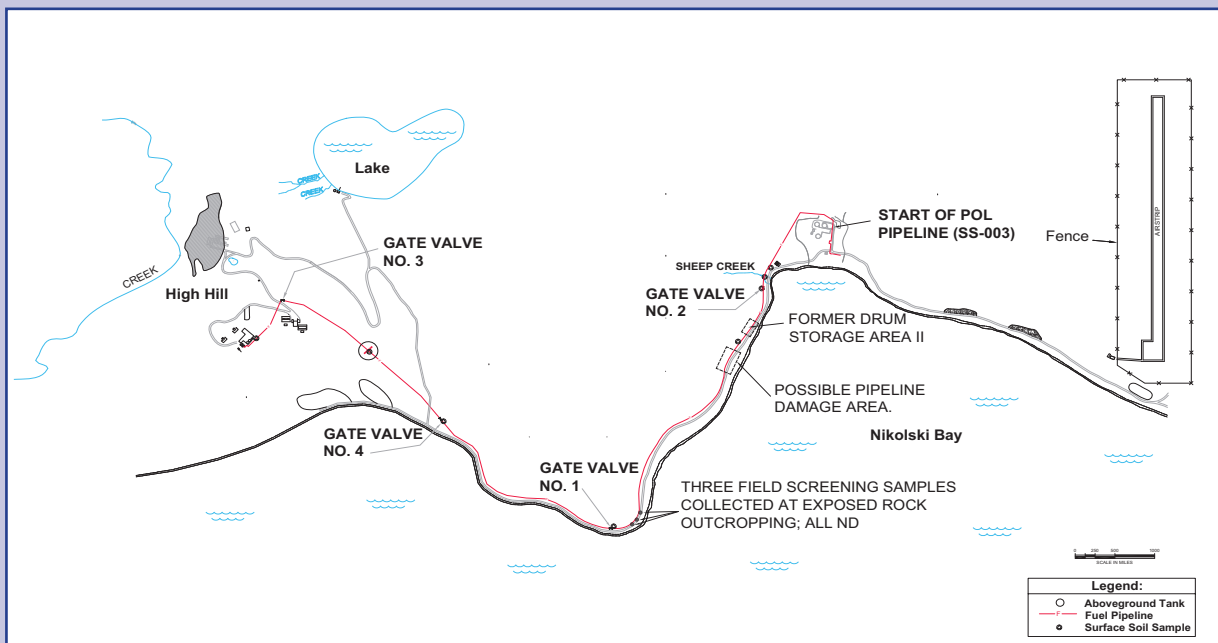
View west from Mona Lisa Beach. The SS003 POL Pipeline originated at Mona Lisa Beach and ended to the east at High Hill.

AIR FORCE ANNOUNCES PROPOSED PLAN

This Proposed Plan identifies the proposed remedial action for the Environmental Restoration Program (ERP) Site Petroleum, Oil and Lubricants (POL) Pipeline (SS003) Site at the Nikolski Radio Relay Station (RRS), and provides the rationale for selecting the proposed remedial action.

This Proposed Plan is issued by the Department of the Air Force (USAF) as the lead agency for site activities. The Alaska Department of Environmental Conservation (ADEC) is the regulatory agency. The USAF will select a final remedy for the site after reviewing and considering all information submitted during the public comment period. The USAF may modify the proposed remedial action or select another remedial alternative based on new information or public comments. Therefore, the public is encouraged to review and comment on this Proposed Plan.

The USAF is issuing this Proposed Plan as part of its public participation responsibilities under Section 117 (a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 42 USC § 9617(a), and Section 300.430 (f)(3) of the National Oil and Hazardous Substances Pollution Contingency Plan. This Proposed Plan summarizes information contained in the Remedial Investigation and Feasibility Study reports and other documents contained in the Administrative Record file. Documents for these sites can be viewed at the Nikolski IRA Council and the U.S. EPA Records Center (refer to page 6 for addresses and contacts). The USAF and the ADEC encourage the public to review these documents to gain a more comprehensive understanding of the site and remedial activities that have been conducted at Nikolski RRS.



SITE HISTORY AND BACKGROUND

The Nikolski RRS is one of 18 Distant Early Warning (DEW) line stations built in Alaska between 1950 and 1959. The Nikolski RRS was constructed in 1958, became operational in 1961, and was deactivated in 1977. The majority of the structures were demolished in 1988. Site SS003 can be seen on the figure above. Historical investigations for the site are summarized below. Studies and reports providing details can be found in the Nikolski IRA Council and the U.S. EPA Records Center (refer to page 6).

The Petroleum Oil and Lubricants (POL) Pipeline (SS003) is part of Nikolski RRS, located on Umnak Island in the Aleutian Island chain. The fuel pipeline was used to pump fuel from the POL storage tanks (SS004) approximately three miles to the two 20,000-gallon storage tanks at the composite building on High Hill. The pipeline was constructed of 2-inch diameter steel piping welded at 21-foot intervals. Beginning at the pumphouse by the POL tanks, the pipeline dipped down into a small wetland approximately 100 feet east of the pumphouse, and then continued behind and around the POL tanks toward the northwest until it came out to the access road, which runs parallel to the coastline. The pipeline continued along the east side of the access road (generally aboveground but with some buried sections) until it began to ascend toward the main facility located on High Hill. The pipeline was removed in 2007, as described on page 3.

Site SS003 is a POL contamination site. Due to the petroleum exclusion in the CERCLA definition of hazardous substances, POL contamination is not normally subject to the CERCLA NCP remedy selection requirements. The CERCLA remedy for this site is no further action (NFA) as there are no CERCLA hazardous substances detected above screening levels at SS003 that are not associated with petroleum. There is, however, petroleum contamination at the site above ADEC cleanup levels. Therefore, the site remedy selected for this site will be implemented pursuant to State of Alaska laws and regulations.

WHAT ARE THE CONTAMINANTS OF CONCERN?

The USAF and ADEC have identified two contaminants that pose potential risk to human health and the environment at this site:

- Diesel-range organics grouping of mid-weight fuel components, such as diesel fuel
- Residual-range organics grouping of heavy fuel components, such as lubricating oil

HISTORICAL INVESTIGATIONS

1995 PRELIMINARY ASSESSMENT/ SITE INSPECTION

During the 1995 Preliminary Assessment and Site Investigation, samples were collected at each of the three gate valves. Samples collected below gate valves No. 1 and No. 2 and near valve No. 3 were analyzed for DRO. DRO was detected at 239 mg/kg, 74 mg/kg, and 1,150 mg/kg, respectively, and all results were below the inhalation/ingestion cleanup level of 8,300 mg/kg. There was no visual evidence of contaminated soil.

2000 SITE INVESTIGATION

During the 2000 Site Investigation, visible portions of the pipeline were inspected and nine soil samples were collected and analyzed for GRO and BTEX. All results for GRO and BTEX were below detection limits, and no areas of soil staining were observed.

2001 REMEDIAL INVESTIGATION

During the 2001 Remedial Investigation, samples were collected along the accessible portion of the length of the pipeline. Extensive soil screening, surface, and subsurface samples were collected from the Former Drum Storage Area II, and tested for GRO, DRO, and RRO. RRO was detected at concentrations exceeding regulatory limits in two surface samples. Soil borings and a test pit sample were collected, and results indicate that DRO contamination is limited to the immediate vicinity of the disconnected portions of pipe at the Possible Pipeline Damage Area. Surface samples were collected and tested for GRO, DRO, RRO, and lead near the Transformer Building, with results below regulatory limits. Samples collected at the apparent break in Pipeline Area were tested for POL, GRO, DRO, and RRO. DRO was detected at concentrations exceeding regulatory limits in two samples. Groundwater was not encountered in any of the soil borings, and therefore, no groundwater samples were collected.

2003 BASELINE RISK ASSESSMENT

During the 2003 Baseline Risk Assessment, any potential risks that contamination could pose to human health or the environment at Site SS003 were estimated and quantified. This process included characterizing the contaminants, potential exposure routes, and potentially exposed human and ecological receptor populations to determine what actions are necessary to reduce risk. The total human health hazard index (HI) and excess lifetime cancer risks were found to be less than ADEC target values, and the results ecological risk characterization indicated that the ecological hazard quotient (HQ) for the fuel pipeline is less than 1.0. A groundwater determination (18 AAC 75.350) was developed for affected areas along the SS003 pipeline route and is included as an attachment to the 2001 Remedial Investigation Report. The groundwater determination concluded that no potable sources of groundwater are associated with affected areas of SS003 and the migration to groundwater pathway could be eliminated from the risk assessment.

2007 PIPELINE DEMOLITION

Pipeline demolition was performed in 2007, as recommended in the Clean Sweep Report (USAF 2001) and in general accordance with the Work Plan for Field Activities, Nikolski RRS. In 2007, the pipeline was inspected for any remaining fuel; no fuel was found in either the aboveground or underground section. 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. The cut sections of pipeline were transported offsite for disposal and recycling as scrap metal.

Studies and reports providing details about the site history can be found in the Administrative Record File or the Information Repository.

SITE CHARACTERISTICS

Site SS003 consists of an approximately 2.5-mile long aboveground POL pipeline that supplied diesel fuel from the aboveground storage tanks (AST) at the POL Tank Area (Site SS004) to the two 20,000-gallon underground storage tanks (UST) on High Hill (Site TU019). The fuel pipeline runs parallel to the shore of Nikolski Bay and the Bering Sea. The portion of the pipeline that runs parallel to the shore of Nikolski Bay is approximately 1.5 miles long. For most of its length, a dirt road parallels the pipeline. The pipeline was constructed of 2-inch-diameter steel piping welded at 21-foot intervals and fitted with four gate valves. The pipeline extends aboveground from the POL Tank Area, northwest along an access road parallel with the coastline, to High Hill, where the pipeline crosses beneath the access road and continues underground to the two 20,000-gallon USTs atop High Hill. In some areas, pipeline is buried as deep as approximately 3 feet below grade but, in other areas, it was not buried. Contamination associated with the site is generally limited to three areas: (1) the possible pipeline damage area (approximately 0.25 acre), and (2) the former drum storage area II (approximately 0.70 acre) and (3) gate valve 3. Total contamination is estimated at 501 cubic yards of petroleum-impacted soil. No principal threat wastes are present at the site.

SCOPE AND ROLE OF THE ACTION

Site SS003 is not part of an operable unit. However, the site is among the thirteen environmental restoration sites that exist at Nikolski RRS. The site has petroleum contamination in soil above applicable state regulatory limits. Therefore, further action is necessary under State of Alaska laws and regulations.

SUMMARY OF SITE RISKS

Potential risk to human health and the environment were evaluated based on the 2003 Baseline Risk Assessment. Site-specific circumstances were considered, including the previous groundwater use determination and low likelihood of future residential development due to storm tides. The human health HI and the Excess Lifetime Cancer Risk (ELCR) are less than ADEC target values. The results of the ecological risk characterization indicate that the ecological HQ for the fuel pipeline site is less than 1.0. There are no CERCLA contaminants or CERCLA chemicals of concern at Site SS003, and therefore no action is proposed under CERCLA. However, there is POL contamination above the ADEC maximum allowable level, and therefore USAF is proposing a remedy under state laws and regulations.

REMEDIAL ACTION OBJECTIVES

Remedial action objectives are the specific goals that a given remedial action is designed to achieve. In accordance with 18 AAC 75.350, Site SS003 was determined to be an unsuitable source of drinking water. Therefore, migration to groundwater is not considered as a screening criterion. Based on 18 AAC 75.341, Table B2, over 40-inch zone screening criteria, the remedial action objectives are as follows:

- Prevent ingestion, or inhalation of soil containing DRO in excess of 8,250 mg/kg.
- Prevent ingestion or inhalation of soil containing RRO in excess of 8,300 mg/kg.

SUMMARY OF PROPOSED REMEDIAL ACTION FOR SITE SS003 EXCAVATION AND OFFSITE DISPOSAL

Estimated Capital Cost	\$1,000,000
Estimated Annual Overhead and Maintenance Cost	\$150,000
Estimated Present Worth Cost	\$1,150,000
Estimated Construction Timeframe	1 year
Estimated Time to Achieve RAOs	1 year

With the Excavation and Offsite Disposal remedy, soils with DRO above 8,250 mg/kg and RRO above 8,300 mg/kg would be excavated, containerized, and shipped offsite to a permitted facility for disposal or treatment. The quantity of contaminated soils excavated is expected to be in the range of 501 cubic yards. The soil would be placed in containers meeting the requirements of the DOT Hazardous Materials Regulations (HMR) at 49 CFR parts 171 through 180. No hazardous substances would remain onsite above 18 AAC 75 soil cleanup levels. Clean fill would be used for site backfill.

SUMMARY OF PROPOSED REMEDIAL ACTION

The proposed remedial action for Site SS003 is NFA under CERCLA and excavation and offsite disposal of petroleum-contaminated soil under State of Alaska laws and regulations. Specifically, there is no evidence of a CERCLA hazardous substances release onsite; thus no further action under CERCLA is appropriate as there are no unacceptable risks from CERCLA hazardous substances. POL contamination (DRO and RRO) is present onsite at levels exceeding applicable State of Alaska regulatory limits. Therefore, excavation and offsite disposal of petroleum contaminated soil will be conducted under state laws and regulations to prevent human exposure to petroleum contamination. The proposed remedial action will be implemented with a work plan that will be developed by the USAF for approval by ADEC. Based on information currently available, the USAF expects the proposed remedial action will be protective of human health and the environment; comply with applicable requirements; provide long-term permanence and effectiveness; have short-term effectiveness; and be cost-effective.



View of High Hill looking northeast. Historically, the pipeline was installed on the southeast side of High Hill (right side of this photo).

COMMUNITY PARTICIPATION

The USAF and ADEC will provide information regarding Site SS003 to the public with a public meeting and the Administrative Record. The public comment period will be 30 days starting on 16 February 2012 and ending on 17 March 2012. The public meeting will be held in Anchorage, Alaska starting at 4 p.m. on 1 March 2012 at:

Alaska Energy Building
4300 B Street, Suite 600, 6th Floor
Anchorage, Alaska 99503

Call in number: 1-800-747-5150
Access Code: 4448229

Written comments can be provided by using the included comment form found on page 7. Verbal comments can be provided by telephoning the USAF Remedial Project Manager at the number provided below, or by attending the public meeting. The Administrative Record files can be viewed at the Nikolski IRA Council and the U.S. EPA Records Center, as specified below.

For more information, see the Administrative Record files at the following locations:

Nikolski IRA Council P.O. Box 105 Nikolski, Alaska 99638 (907) 576-2225	U.S. EPA Records Center Region 10 1200 Sixth Ave, Suite 900, 7th Floor Seattle, WA 98101 (206) 553-4494 Hours: Mon – Fri, 8:30 a.m. to 4:30 p.m.
Steve Hunt Remedial Project Manager (907) 552-4869	Tommie Baker Community Relations Coordinator (800) 222-4137

For further information on Site SS003, please contact:

U.S. Air Force
USAF 611th CES/CEAR
10471 20th Street, Suite 302
JBER, Alaska 99506

GLOSSARY OF TERMS

Alaska Department of Environmental Conservation (ADEC) – the regulatory body that monitors the enforcement of Alaska's environmental standards.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – a United States federal law designed to clean up sites contaminated with hazardous substances.

diesel-range organics (DRO) – organics in the diesel range, which corresponds to an n-alkane range from the beginning of C10 to the beginning of C25, and a boiling point range of approximately 170 °C to 400 °C.

Distant Early Warning (DEW) line – a system of radar stations in the far northern arctic region of Canada and along the North Coast and Aleutian Islands of Alaska.

gasoline-range organics (GRO) – organics in the gasoline range, which corresponds to an n-alkane range from the beginning of C6 to the beginning of C10, and a boiling point range of approximately 60 °C to 170 °C.

mg/kg – a unit of measurement representing 1 milligram of the contaminant per kilogram of soil as a way to describe the amount of contamination.

petroleum, oil, and lubricants (POL) – all petroleum and associated products.

Remedial Investigation – a site investigation performed to characterize and assess potential for contamination.

residual-range organics (RRO) – organics in the motor and lubricating oil range, which corresponds to an n-alkane range from the beginning of C25 to the end of C36, and a boiling point range of approximately 400 °C to 500 °C.

COMMENTS ON SITE SS003 PROPOSED PLAN

(Use this sheet to write your comments)

Your input on the proposed remedial action discussed in this Proposed Plan is important to the U.S. Air Force. Comments provided by the public are valuable in helping the agency select a final remedy.

Use the space below to prepare your comments. When you are finished, please fold and mail. A return address has been provided on the back of this page for your convenience. Comments must be postmarked by 17 March 2012.

If you have questions about the comment period, please contact Steve Hunt at (907) 552-4869, or through the USAF's toll-free number at 1-800-222-4137. Those with access to email may submit their comments to the USAF at the following address: Steve.Hunt@elmendorf.af.mil.

	Name:	
	Address:	
	City/State:	
	Zip Code:	Phone:



Comments on Proposed Plan for Nikolski Radio Relay Station, Alaska Site SS003

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Steve Hunt
U.S. Air Force
USAF 611th CES/CEAR
10471 20th Street, Suite 302
JBER, Alaska 99506