STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

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File: 1516.26.005

June 29, 2010

Mr. Robert Berto
South Tongass Service Inc.
PO Box 8080
Ketchikan, AK 99901

Re: Decision Document; South Tongass Service Station
Corrective Action Complete Determination

Dear Mr. Berto,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with South Tongass Service Station located at 2852 South Tongass Highway in Saxman. Based on the information provided to date, the ADEC has determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment, and this site will be closed.

This decision is based on the South Tongass Service Station Contaminated Site administrative record, which is located in the offices of the Alaska Department of Environmental Conservation (ADEC) in Juneau, 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 Corrective Action Complete Determination.

Introduction

Site Name and Location:
South Tongass Service Station
2852 South Tongass Highway
Saxman, Alaska 99901
Lots 1, 2, 3, 4, 5, 6 & 7, Block 32, US Survey 1652

Name and Mailing Address of Contact Party:
Mr. Robert Berto
South Tongass Service Inc.
PO Box 8080
Ketchikan, AK 99901

Database Record Key and File Number:
ADEC Reckey: 1995130020201
File: 1516.26.005
Hazard ID: 24535

Regulatory authority under which the site is being cleaned up:
18 AAC 75 and 18 AAC 78

Background
The property has two distinct grades separated by twelve foot tall rock retaining wall. A 6,000 square foot single story retail convenience store and a fuel dispenser island are located on a 30,000 square foot upper bench area that is on grade with Tongass Highway at the north end of the property. Behind the main building and below the retaining wall is the 82,000 square foot lower portion of the property that is accessible by road, undeveloped, and is primarily used for storage. The entire 2.5 acre property is owned by Southeast Stevedore's Inc., a parent company based in Ketchikan. There is no private or public drinking water well down gradient of the South Tongass Service Station. The Ketchikan Gateway Borough supplies water and sewer to the South Tongass Service Station and the Saxman area.

Laboratory analysis of soil and ground water samples collected at the site have been tested for benzene, toluene, ethylbenzene and total xylenes (BTEX) hydrocarbon compounds and gasoline and diesel hydrocarbon fractions (GRO and DRO) and total lead.

Site Assessment and Corrective Action
In the spring of 1995 petroleum product was observed seeping from the rock retaining wall behind the main building. The owner responded by cleaning up free product in the seep drainage path on the lower portion of the property and draining and discontinuing use of a 5,000-gallon leaking underground storage tank (UST) located on the upper portion of the property. In June 1995, Woodward-Clyde Consultants performed a *Site Assessment* in conjunction with closure by removal of three 5,000 gallon underground storage tanks (USTs) and piping appurtenances from the upper portion of the property. Pinholes were observed in the two gasoline USTs. Petroleum stained soil was observed in material above the diesel tank near the fill and vent piping, on the sides, at the ends, and underneath the all three tanks. Contaminated material from the single twenty by forty by ten foot UST removal excavation to bedrock depth was stockpiled on a liner on the lower portion of the property. Laboratory analysis of soil confirmation samples collected from the bottom of the excavation twelve feet below surface grade at the center and ends beneath each of the USTs detected maximum concentration in soil of benzene at 0.096 mg/kg, GRO at 3,500 mg/kg and DRO at 4,100 mg/kg. Although field screening indicated no contamination under the dispenser island that was left in-place, laboratory analysis of the soil confirmation samples detected benzene at 0.38 mg/kg, GRO at 530 mg/kg and DRO at 28,000 mg/kg. Ground water with sheen in the excavation appeared to drain toward the retaining wall.

A Release Investigation was performed in the fall of 1996 in which Woodward-Clyde Consultants advanced thirteen soil borings and one test pit in the upper portion of the property to define the mass of the residual petroleum hydrocarbon subsurface plume. Two of the borings were developed into ground water wells and the rest were developed as vent wells. Soil samples collected from the borings indicate that elevated concentrations of DRO, GRO and BTEX persist in soil between the former UST footprints and the retaining wall.

Total lead detected in soil boring samples reached 15.3 milligrams per kilogram (mg/kg), total BTEX compounds reached 90.5 mg/kg, GRO reached 580 mg/kg and DRO reached 2,300 mg/kg. Groundwater analysis had results of 3.4 milligrams per liter (mg/L) benzene, 45.6 mg/L GRO and 6.2 mg/L DRO in MW-2. Corrective Action continued with removal of contaminated soil below the

retaining wall in the seep drainage down gradient of the UST petroleum releases. This excavation also extended to bedrock and ended eight (8) feet from the retaining wall to preserve its integrity. The contaminated soil material was added to the UST removal contaminated soil stockpile on the lower portion of the property. Confirmation soil samples at the limits of excavation were below applicable cleanup levels at that time and below current 18 AAC 75.341 Method Two cleanup levels for petroleum and lead in soil.

In the June1998 Release Investigation by Agra Earth & Environmental Inc. water samples were collected from three of the eight monitoring wells previously installed on the upper portion of the property. Concentrations of BTEX compounds were not detected in the sample from well No. 7 and each compound detected in samples from well No. 3 and No. 8 were below applicable cleanup levels at that time and below current 18 AAC 75.345 Table C cleanup levels. DRO and GRO were not detected in the sample from well No. 7 but were detected in samples from well No. 3 and No. 8; GRO reached 5.7 mg/L in the sample from well No. 8 and 1.5 mg/L in well No. 3. The samples and field duplicate analytical results of the Release Investigation were within acceptable range of ADEC quality assurance criteria.

In July 2009, Barry Hogarty with TECS-AK based in Ketchikan collected Release Investigation water samples from two wells installed on the upper portion of the property. Concentrations of BTEX, GRO and DRO were not detected in laboratory analysis of the samples from well No. 3 and well No. 8. A thorough screening of the contaminated soil stockpile gave no indication of volatile BTEX compounds. Laboratory analysis of soil samples from the contaminated soil stockpile located on the lower portion of the property indicates no soil contamination above GRO and DRO migration to groundwater soil cleanup levels. The samples and field duplicate analytical results of the Release Investigation were within acceptable range of ADEC quality assurance criteria.

Contaminants of Concern

During the investigations at this site, soil samples were analyzed for diesel range organics (DRO); gasoline range organics (GRO); benzene, toluene, ethylbenzene, and xylenes (BTEX) and lead. Based on these analyses and knowledge of the source area, the following Contaminants of Concern were identified:

- Gasoline range organics (GRO)
- Diesel range organics (DRO)
- Benzene
- Toluene
- Ethylbenzene
- Total xylenes

Cleanup Levels

The default soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Tables B1 and B2, Migration to Groundwater. These are the most stringent cleanup levels and are protective of all human health exposure pathways for soil.

Cleanup Level (mg/kg) Migration to Groundwater	
GRO	260
DRO	230

Benzene	0.025
Toluene	6.5
Ethylbenzene	6.9
Total xylenes	63

The default groundwater cleanup levels for this site are established in 18 AAC 75.345 Table C Groundwater Cleanup Levels.

Contaminant	Site Cleanup Level (mg/L)
GRO	2.2
DRO	1.5
Benzene	0.005
Toluene	1.0
Ethylbenzene	0.7
Total xylenes	10

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
Surface Soil Contact	Pathway Incomplete	Any remaining contamination is below the migration to groundwater cleanup levels. This is the most stringent cleanup level and is protective of all human health exposure pathways for soil.
Sub-Surface Soil Contact	De-minimis exposure	Contamination remains in the subsurface, but is below migration to groundwater cleanup levels.
Inhalation – Outdoor Air	De-minimis exposure	Contamination remains in the subsurface, but is below migration to groundwater cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	De-minimis exposure	Any remaining contamination is below migration to groundwater cleanup levels.
Groundwater Ingestion	Pathway Incomplete	Any residual contamination is below Table C ground water regulatory cleanup levels.
Surface Water Ingestion	Pathway Incomplete	Surface water within ¼ mile of the site is not a current or future drinking water source.
Wild Foods Ingestion	Pathway Incomplete	There is no wild food harvesting in the area.
Exposure to Ecological Receptors	Pathway Incomplete	There are no ecological receptors in the area.

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 cleanup actions to date have served to excavate and adequately remediate contaminated soil and ground water at the site. Based on the information available, ADEC has determined no further assessment or cleanup action is required. There is no longer a risk to human health or the environment, and this site will be designated as closed on the Department's database.

Although a Corrective Action Complete determination has been granted, ADEC approval is required for off-site soil disposal in accordance with 18 AAC 78.600(h), however since this site has met the most conservative soil cleanup levels, this letter will serve as your approval for future off-site movement and disposal of soil associated with this release. It should be noted that movement or use of potentially contaminated soil in a manner that results in a violation of 18 AAC 70 water quality standards is unlawful.

This determination is in accordance with 18 AAC 78.276(f) 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.

If you have questions about this closure decision, please contact the ADEC project manager, Bruce Wanstall at (907) 465-5210.

Approved By,

Richard Sundet
Environmental Manager

Recommended By

Bruce Wanstall
Environmental Program Specialist

Cc: Barry Hogarty, TECS-AK, via email