STATE OF ALASKA

SARAH PALIN, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

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File: # 300.38.226
Certified Return Receipt
7002 2410 0005 3103 7333

December 1, 2008

Sarah Kenshalo
ConocoPhillips Alaska, Inc.
P.O. Box 100360
Anchorage, AK 99510-0360

Re: Record of Decision; ConocoPhillips West Sak River State 1
Cleanup Complete Determination- Institutional Controls

Dear Ms. Kenshalo:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with ConocoPhillips West Sak River State 1 located in the Kuparuk Oilfield on the North Slope of 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.

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
ConocoPhillips West Sak River State 1
Kuparuk, AK

Name and Mailing Address of Contact Party:
Sarah Kenshalo
ConocoPhillips Alaska, Inc.
P.O. Box 100360
Anchorage, AK 99510-0360

Database Record Key and CS file number:
Hazard ID #1962
ADEC Reckey # 1993360119601
CS file # 300.38.226

Regulatory authority under which the site is being cleaned up:
18 AAC 75 and 18 AAC 70

Background
Diesel contamination was found on the gravel pad at this exploration site during a Phase II investigation conducted in 2004. Samples collected during the various activities at the site were analyzed for diesel range organics (DRO), residual range organics (RRO), benzene, toluene, ethylbenzene, and xylenes (BTEX), toxicity characteristic leaching procedure (TCLP) metals, and polynuclear aromatic hydrocarbons (PAHs).

Site Characterization
A previous excavation had been conducted in the center of the pad as part of a suspected diesel spill cleanup effort prior to the Phase II investigation and subsequent corrective action.

The corrective action conducted in 2008 included removal of the entire gravel pad, reserve pit, and flare pit. The excavated gravel was segregated based on the Phase II data; with additional stockpile sampling conducted to characterize gravel for reuse. Clean gravel and restricted use gravel with DRO concentrations less than 2,000 mg/kg were used to backfill the reserve pit, the remaining clean and restricted use gravel was transported to Drill Site (DS) 1C for use as backfill in the South Reserve Pit. Contaminated gravel with DRO concentrations greater than 2,000 mg/kg was transported to the grind and inject facility at DS 4 for disposal by injection.

Composite confirmation samples collected following removal of the pad found DRO up to 3,910 mg/kg and one sample with DRO at 37,700 mg/kg in tundra material adjacent the wellhead after excavation ceased due to the depth. Select samples were analyzed for BTEX and PAHs; none were detected.

Contaminants of Concern
Diesel Range Organics

Cleanup Levels
The cleanup levels for petroleum hydrocarbon-contaminated soil on manmade gravel pads and roads in the Arctic Zone are established in 18 AAC 75.341 Method One, Table A2 and 18 AAC 75.341 Method Two Tables B1 and B2.

A number of factors are considered by ADEC when evaluating site specific cleanup levels in the Arctic Zone including:

- human health (ingestion/inhalation);
- ecological impacts (contamination impacting ecological receptors);
- groundwater and surface water quality;
- presence of free phase product; and
- any other factors that might cause a deleterious impact to the environment.

In the Arctic Zone, the migration to surface water pathway is evaluated as the primary migration pathway because the migration to groundwater pathway is not considered applicable due to the presence of continuous permafrost. Impacted surface water can adversely affect both human and

ecological receptors, depending on the location of the contaminant source, its proximity to surface waters, and water usage in the impacted area. Therefore the migration to surface water pathway is evaluated as a possible risk to human health (drinking water source) and/or for compliance with Alaska Water Quality standards (18 AAC 70). In addition, the migration to surface water is evaluated as a possible exposure pathway for ecological receptors because of the tundra wetland ecosystem that exists throughout the Arctic region. Potential future use of the property must also be taken into account when determining closure status. Differentiating between a "Cleanup Complete" and a "Cleanup Complete with Institutional Controls" determination will be based on site specific conditions and exposure pathways as determined by ADEC.

Pathway Evaluation

The human health exposure pathways that were evaluated for this decision document include: inhalation of outdoor air; ingestion of soil; dermal contact with soil; and ingestion of surface water and groundwater. The inhalation, ingestion, and dermal contact pathways may be complete, but the site is remote. The area was covered with overburden in preparation for site rehabilitation, and there are no future plans to develop this area. Due to these conditions, it is unlikely that receptors will be exposed via these pathways.

In the Arctic Zone, the migration to surface water pathway is evaluated for a possible risk to human health as a drinking water source. The surface water adjacent to this former pad is not a drinking water source; therefore, the human exposure pathway is not considered complete.

In addition, the migration to surface water is evaluated as a possible exposure pathway for ecological receptors and for compliance with Alaska Water Quality standards. The migration to surface water pathway may be complete, but the remaining contamination is below the surface and is covered by overburden. Additionally this area will be subject to periodic monitoring in accordance with the Reporting Requirements outlined below.

The exposure pathway analysis above was supported by the most recent ADEC Exposure Tracking Model (ETM) ranking. The ETM results showed all pathways to be one of the following: De Minimis Exposure, Exposure Controlled, or Pathway Incomplete.

ADEC Decision

There is contamination remaining above established cleanup levels at ConocoPhillips West Sak River State 1, but ADEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Cleanup Complete with Institutional Controls. A Notice of Environmental Contamination will be recorded on the ADEC database to document that there is residual contamination remaining on site above the most stringent ADEC cleanup levels.

This decision is subject to the following conditions:

1. Any proposal to transport soil off site requires ADEC approval in accordance with 18 AAC 75.325(i). A "site," as defined by 18 AAC 75.990 (115), is 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 unlawful.
3. Periodic reporting every three years, to ADEC on site status is required as described below in the "Reporting Requirements" section. Periodic reporting may also be conducted on another schedule as agreed upon by ConocoPhillips and ADEC

Reporting Requirements
Contaminated material that remains below the surface could pose a risk to receptors under certain circumstances. Therefore a review of site conditions must be conducted and reported to ADEC once every three years, or at the time land use and/or ownership changes (if sooner than three years.) This reporting may also be conducted in conjunction with the site rehabilitation inspections conducted under the Site Rehabilitation Program. The report must include a visual observation of the site and any information pertaining to land use/ownership changes during the reporting period. If land use and/or ownership changes, current ICs may not be protective and ADEC may require additional cleanup action or ICs. This reporting requirement will remain in place until rescinded in writing by the ADEC Project Manager. **The report can be sent to the local ADEC office or electronically to DEC.ICUnit@alaska.gov.**

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.

If you have questions about this closure decision, please contact ADEC Project Manager William O'Connell at (907) 269-3057.

Sincerely,

Linda Nuechterlein
Environmental Manager

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

Cc. Gary Schultz, ADNR Fairbanks

300.38.226
ADEC File No.

Attachment A: Cleanup Complete-ICs Agreement and Signature Page

ConocoPhillips Alaska Inc. agrees to the terms of this Cleanup Complete-ICs determination as stated in this Record of Decision (ROD) document. 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)(2).

Sarah M. Kenshalo
Signature of Authorized Representative
ConocoPhillips Alaska Inc

Sarah M. Kenshalo
Printed Name of Authorized Representative
ConocoPhillips Alaska Inc

Note to Responsible Person:
After making a copy for your records, please return a signed copy of this form to the ADEC project manager, Bill O'Connell, at the address on this correspondence within 30 days of receipt of this letter.

Attachment B: Site Figure