

Environmental Assessment

EPA General Permit Coverage

Of the Ooguruk Development Project

Discharging to Water of the Beaufort Sea, Alaska

Prepared by:

U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue, OWW-130
Seattle, WA 98101

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Environmental Assessment

EPA General Permit Coverage of the Oooguruk Development Project Discharging to Waters of the Beaufort Sea, Alaska

1.0 INTRODUCTION

This Environmental Assessment (EA) evaluates the potential environmental impacts associated with authorization of new source wastewater discharges under the U.S. Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) General Permit No. AKG-33-0000 (General Permit) for oil and gas exploration, development and production activities at the Oooguruk Development Project. The Oooguruk Development Project is regulated under the Coastal and Offshore Subcategory of the Oil and Gas Extraction Point Source Category (Title 40 of the Code of Federal Regulations [CFR], Part 435, Subparts A and D). The area of coverage for the General Permit is the North Slope Borough of Alaska and seaward for camp and ice structure discharges. The permit does not authorize the placement of operations in areas of restricted activity. The General Permit is included as Appendix A.

1.1 Purpose and Need

Under the NPDES permit program, EPA has developed a general permit for discharges related to oil and gas extraction on the North Slope of the Brooks Range, Alaska. EPA uses general permits to address similar operations within an industry sector, located within the same geographic area, that have comparable operational and wastewater treatment practices. Pioneer Natural Resources Alaska, Inc. (Pioneer) has applied for coverage under the General Permit to allow combined sanitary wastewater and graywater wastewater discharges from the Oooguruk Development Project Offshore Drill Site (ODS) into open water of the Beaufort Sea, off the North Slope of Alaska. EPA is proposing to grant coverage of this discharge under the General Permit. Appendix B includes a map (Figure 1) of the ODS and discharge location.

The purpose of the Oooguruk Development Project is to construct an off-shore drillsite, then drill, produce and transport 3-phase hydrocarbon resources from the Oooguruk Oil and Gas Unit. Processing and separation activities will occur at existing Kuparuk River Unit facilities on the North Slope of Alaska.

EPA has determined that Pioneer's Oooguruk Development Project is a new source under 40 CFR 435, Subpart D. Under Section 511 (c)(1) of the Clean Water Act (CWA), issuance of NPDES permits for new sources are subject to the provisions of the National Environmental Policy Act (NEPA) prior to final action on the permit. The purpose of this EA is to evaluate the potential effects to the human and natural environment that would result from granting coverage under the General Permit to Pioneer for the Oooguruk Development Project discharges to waters of the North Slope, Alaska.

This EA incorporates by reference (where indicated) certain sections of the Environmental Assessment (EA) prepared by the U.S. Army Corps of Engineers, Alaska District in February 2006 (COE EA) for the same project, the *Oooguruk Development Project Environmental Evaluation Document (EED)* and the *Oooguruk Development Project Updates* that were prepared by Pioneer in July 2005 and June 2006, respectively.

1.2 Background

1.2.1 Clean Water Act and General NPDES Permits

Sections 301 and 306 of the CWA require that EPA develop wastewater effluent standards for specific industries, including oil and gas extraction operations. Standards have been established for both existing sources and new sources. Section 402 of the CWA establishes the NPDES permit program, under which point source discharges to waters of the United States are subject to authorization by EPA. New effluent limitations guidelines and new source performance standards for the coastal subcategory of the oil and gas extraction point source category were promulgated by EPA on December 16, 1996, and went into effect January 15, 1997 (40 CFR Part 435, Subpart D).

According to regulations promulgated under the CWA (40 CFR 122.28), EPA may issue a general NPDES permit to a category of point sources within the same geographic area if the sources:

1. are involved in the same or substantially similar operations;
2. generate and discharge the same types of wastes;
3. require the same permit effluent limitations and/or operating conditions; and,
4. require similar monitoring requirements; and, in the opinion of the Director of the NPDES program, are more appropriately controlled under a General Permit than an individual permit.

EPA assesses the permit application (both existing and new source) to determine whether a facility is appropriately covered by the General Permit. As with individual NPDES permits, violation of a general NPDES permit constitutes a violation enforceable under authority of the CWA. Granting coverage under the General Permit would not exempt any oil and gas extraction operation from the requirement to obtain any other Federal, State or local permits.

New oil and gas development and production operations where construction commenced after the effective date of applicable new source performance standards are considered new sources. A proposed oil and gas development and production project is determined by EPA to be a new source if it meets the new source criteria under 40 CFR 122.29.

In accordance with Section 511(c)(1) of the CWA and 40 CFR Part 6, NPDES permits for new sources are subject to the provision of NEPA prior to final action on the permit. At a minimum, NEPA requires preparation of an EA. If EPA concludes there would not

be significant impacts, or if the impacts could be reduced or eliminated through mitigation measures, EPA prepares a Finding of No Significant Impact (FONSI). If there is likely to be significant impacts that could not be mitigated, EPA must prepare an Environmental Impact Statement (EIS).

1.2.2 North Slope NPDES General Permit

The General NPDES Permit Related to Oil and Gas Extraction for the North Slope of Alaska provides that new source oil and gas extraction operations would continue to be subject to individual NEPA reviews (EPA, 2003). This enables EPA to evaluate the site-specific impacts associated with individual new source projects in addition to cumulative effects. Where an individual EA prepared for a new source project indicates that significant impacts are not anticipated, a FONSI would be issued (subject to public review) and the new source project would be granted coverage under the General Permit, subject to its provisions. Where EPA determines that significant impacts from a new source project may occur, an EIS would be prepared prior to EPA's final permit decision.

Under the terms of the General Permit, an individual permit may be required in lieu of coverage under the General Permit for the reasons outlined in 40 CFR 122.28(b)(2). Therefore, an individual permit may be required for new source projects for which an EA or EIS is prepared. EPA may issue or deny an NPDES permit (or allow/disallow coverage under a general permit) based on a review of the overall project-related impacts disclosed in an EA or EIS [40 CFR 122.29(c)(3)].

2.0 ALTERNATIVES

2.1 Introduction

EPA is required under NEPA to consider alternatives to the proposed action and their environmental consequences. In the process of developing effluent limitations guidelines for new source performance standards, EPA considered several wastewater treatment control technologies. EPA is not addressing alternative wastewater treatment technologies in this EA. There are two alternatives available to EPA. EPA could either grant coverage under the General Permit (the Proposed Action) or deny coverage under the General Permit (the No Action Alternative). If potentially significant impacts are identified, EPA must prepare an EIS prior to taking final action.

2.2 Oooguruk Development Project and Nature of Discharges

2.2.1 Project Operations

The Oooguruk Development Project consists of an offshore drillsite (production drillsite) in East Harrison Bay, Alaska, for drilling, producing and transporting 3-phase hydrocarbon resources from the Oooguruk Oil and Gas Unit for processing and separation at existing Kuparuk River Unit (KRU) facilities. The project will include an offshore production drillsite, offshore and onshore flowlines, and an onshore production

facilities pad northwest and immediately adjacent to existing facilities at existing KRU Drillsite 3H (DS-3H) on State of Alaska oil and gas leases. The production drillsite is located in 4 to 6 feet of water approximately 2.5 miles north of the mouth of the Colville River Delta, 2.1 miles northwest of the KRU, and 8.9 miles west of Oliktok Point. The trench-buried subsea flowline would transfer produced fluids 5.7 miles from the production drillsite to shore, then transition to aboveground flowline supported on Vertical Support Members (VSMs) for 2.4 miles, and a tie-in at DS-3H. The shoreline transition of subsea flowline to aboveground flowline is approximately 2,700 feet north of Kalubik Creek.

Gravel placement activities for the Oooguruk Drill Site and the onshore production tie-in pad were completed in May 2006. Additional 2006 activities at the drillsite included construction of the wharf/dock; installation of well conductors, production modules and the camp; gravel conditioning; and installation of the slope protection. For the production tie-in pad, installation of the onshore fuel tank farm and flowline production camp also commenced in 2006.

According to Pioneer's *Oooguruk Development, Project Updates* (Pioneer, June 2006), two camps will be used to provide accommodations for construction and drilling personnel. Pioneer has proposed to construct a 400-person camp at a gravel pad adjacent to the onshore production tie-in pad to support construction activities for approximately 9 months. A constructed 216-person camp, including support facilities such as kitchens, sanitary facilities, and utilities has been acquired by Pioneer to satisfy some of the camp needs. Water sources for the 400-person onshore camp may include hauled water from a public water system and water from an existing DS-3H lake. Domestic wastewater and graywater generated at the camp will be hauled to an existing KRU Class I underground injection control (UIC) facility for disposal. Pioneer has not requested coverage under the General Permit for new source domestic wastewater discharges from the onshore camp facilities.

A 76-person camp will be installed at the offshore drillsite. Water sources may include hauled water from a public water system and treated potable water from two water wells that were completed at the offshore drillsite in May 2006. Domestic wastewater and graywater generated at the camp will be collected in a combined system and treated in a membrane bioreactor. An average flow of 5,625 gallons per day with a peak flow of 17,000 gallons per day will be discharged through an outfall to the Beaufort Sea or to a planned Class I/II UIC well. The UIC well would be used for disposal of exempt wastes, such as treatment and workover fluids, drill cuttings and mud from construction of the anticipated 48 development wells, and minor amounts of nonexempt, nonhazardous liquids, including camp wastewater treatment plant effluent, camp graywater water and the drillsite sumps that catch storm water. A UIC permit application is expected to be submitted in early 2007. Pioneer has requested coverage under the General Permit for new source domestic wastewater discharges from the offshore camp facilities for the time period prior to commissioning the UIC well and as a contingency disposal option thereafter.

Construction of the offshore drillsite camp and the onshore tie-in pad production pad commenced in late 2006. The combined domestic wastewater and graywater discharges (wastewater) associated with the Oooguruk Development Project would be generated during construction activities as well as during drilling and permanent operations. In both cases, wastewater would be routed through an approved wastewater treatment unit or plant. Appendix B includes a map of the offshore drillsite discharge location for the Oooguruk Development Project.

During the civil construction phase of the project, the preferred option is to discharge treated effluent under the General Permit AKG-33-0000. During Oooguruk development and production operations, from both the offshore drill site and the onshore production tie-in pad, the primary wastewater disposal methods would either be onsite injection of wastewater at an approved UIC well or use of the treated wastewater to support drilling operations. Contingencies for wastewater disposal include discharge in accordance with the General NPDES Permit or hauling wastewater to an approved North Slope facility. Contingencies for facility operations would be employed prior to completion of the disposal well and as an interim measure should the disposal well be inoperable.

During operations, if the wastewater treatment system is used, sewage sludge would be hauled offsite for disposal at a permitted facility or disposed down the proposed UIC well. All other innocuous waste would be hauled to the North Slope Borough's ADEC-permitted solid waste disposal facility in Prudhoe Bay.

2.2.2 Effluent Characteristics

Pioneer submitted an original Notice of Intent (NOI) for coverage of wastewater discharges under NPDES general permit AKG-33-000 on July 20, 2005, which included the following types of discharges to receiving waters on North Slope tundra wetlands and the Beaufort Sea:

<u>Discharges</u>	<u>Average Daily Flow as Gallons per day (GPD)</u>	<u>Maximum GPD</u>
001 Domestic Wastewater	20,000	25,000
002 Graywater Discharges	4,000	5,000
003 Gravel Pit Dewatering	300,000	3,000,000
004 Construction Dewatering	200,000	300,000
005 Hydrostatic Test Water	100,000	150,000
006 Storm Water	(varies with events)	5,000,000
007 Mobile Spill Response	(varies with events)	10,000

EPA issued permit AKG-33-083 on February 23, 2006 for coverage under the General Permit for all listed discharges except 001 and 002. Domestic wastewater, as a new source discharge, must undergo NEPA review prior to coverage under the General Permit. Subsequent to the June 2005 NOI, Pioneer submitted an updated and revised NOI on June 30, 2006 for coverage of combined domestic wastewater and graywater

discharge as 001 (domestic wastewater) discharge under the General Permit, for discharges to open water of the Beaufort Sea from an offshore drillsite (Appendix B). The updated NOI indicates the following average flow rate:

<u>Discharge</u>	<u>Average GPD</u>	<u>Maximum GPD</u>
001 Combined Wastewater	5,625	17,000

2.3 Proposed Action

Under the Proposed Action, coverage under the General Permit would be granted by EPA to Pioneer for combined sanitary wastewater and graywater discharges associated with the Oooguruk Development Project on the North Slope of Alaska. The Oooguruk Development Project would be allowed to discharge wastewaters generated at an offshore drillsite to marine waters of the Beaufort Sea pursuant to conditions established in the General Permit. The existing AKG-33-083 NPDES permit for the Oooguruk Development Project would be amended to include the 001 Combined Wastewater discharges.

The General Permit allows for sanitary and domestic wastewater discharges under the limits established in the General Permit. This includes effluent limitations for biological oxygen demand measured over five days (BOD₅), total suspended solids (TSS), fecal coliform, dissolved oxygen (DO), and total residual chlorine (TRC) as further discussed below under "Applicable Effluent Limitations and New Source Performance Standards."

2.3.1 Applicable Effluent Limitations/New Source Performance Standards

An evaluation of the oil and gas extraction industry and alternative wastewater treatment technologies was conducted to support development of the effluent limitations and new source performance standards promulgated under 40 CFR Part 432, Subpart D.

Domestic wastewater, as defined in General Permit AKG-33-0000 and State of Alaska regulations at 18 *Alaska Administrative Code* (AAC) 72.990(23), means waterborne human wastes (sanitary waste) and/or graywater (from a laundry, kitchen, sink, shower, bath, or other domestic source and that does not contain excrement, urine, or combined storm water). Waste flows may vary from zero for intermittently manned facilities to several thousand gallons per day for large facilities. For sanitary wastes (made up of human body wastes from toilets and urinals), the Best Practicable Control Technology (BPT) level of treatment prohibits floating solids for facilities continuously manned by 9 or fewer persons or intermittently manned by any number of persons. To comply with this limit, operators grind the waste prior to discharge. A BPT for chlorine requires maintaining residual chlorine levels as close as possible to, but no less than, 1 milligram per liter (mg/L) for sanitary discharges for facilities staffed by 10 or more people. For domestic wastes (materials discharged from sinks, showers, laundries, safety showers, eyewash stations and galleys), the BPT level of treatment prohibits floating solids, foam, or garbage. Foam is a nonconventional pollutant and its limitation is intended to control

discharges that include detergents. EPA established the zero discharge limitation for garbage that is included in U.S. Coast Guard regulations at 33 CFR Part 151.

Secondary treatment [18 AAC 72.040 and 18 AAC 72.990(64)] requirements applicable to the Oooguruk Development Project include:

Biological Oxygen Demand measured over 5 days (BOD₅): BOD must meet a 7 day average of 45 mg/L, a 30 day average of 30 mg/L and the arithmetic mean of the values for effluent samples collected in a 24-hour period may not exceed 60 mg/L.

Total suspended solids (TSS): TSS must meet a 7 day average of 45 mg/L, a 30 day average of 30 mg/L and the arithmetic mean of the values for effluent samples collected in a 24-hour period may not exceed 60 mg/L.

Water quality based limitations applicable to the Oooguruk Development Project include:

Fecal Coliform: For marine waters, the most protective standard for fecal coliform is for harvesting for consumption of raw mollusks or other raw aquatic life use. The Alaska Water Quality Standards (AWQS) state, "Based on a 5-tube decimal dilution test, the fecal coliform median Most Probable Number (MPN) may not exceed 14FC/100 mL, and not more than 10% of the samples may exceed a fecal coliform median MPN of 43 FC/100mL.

Chlorine: The most protective marine standard for chlorine is for aquaculture. For both, the AWQS state, "May not exceed 2.0 µg/L (micrograms per liter) for salmonid fish or 10.0 µg/L for other organisms. The term "salmonid fish" is defined in General Permit AKG-33-0000 as the family of fish, *Salmonidae*, which includes salmon, trout, grayling, whitefish, char, ciscoe and inconnu. The General Permit is structured so that there is some flexibility for those facilities discharging to waterbodies not designated for salmonid fish; however, due to the location of the Oooguruk Development Project and receiving waters for wastewater discharges, the most stringent limitations apply.

pH: For marine waters, the most protective limitations are for aquaculture and the growth and propagation of fish, shellfish, other aquatic life and wildlife. This level is 6.5 to 8.5 standard units.

Oil and Grease: Applicable standards for oil and grease are limited to "shall not cause a film, sheen, or discoloration on the surface or floor of the water body or adjoining shorelines." The potential source of oil and grease in this discharge would be excess cooking oils. While the ordinary cleaning of utensils and cooking appliances is acceptable, the discharge of excess cooking oil is not. The state criteria can be met by requiring that no kitchen oils from food preparation be mixed with the wastewater being discharged.

The tables below summarize the effluent limitation and monitoring requirements from AKG-33-0000 that apply to the Ooguruk Development Project 001 wastewater discharges:

TABLE 1 EFFLUENT LIMITATIONS					
Parameter	Daily Minimum	7-Day Average	30-Day Average	Daily Maximum	Units
Flow	---	---	---	25,000	gallons/day
Biochemical Oxygen Demand (BOD ₅)	---	45	30	60	mg/L
	see footnote 1				lbs/day
Total Suspended Solids (TSS)	---	45	30	60	mg/L
	see footnote 1				lbs/day
Fecal Coliform ¹	Freshwater	---	---	20	#/100 ml
	Marine water	---	---	14	
Dissolved Oxygen	Freshwater	7.0	---	---	mg/L
	Marine water	5.0	---	---	
Total Residual Chlorine ² (TRC)	---	---	---	2 ^{4,5}	µg/L

1. BOD₅ and TSS mass loading limits apply to each discharge. The calculation for these limitations is based on the following formula: concentration limit (mg/L) X facility design flow (MGD) X 8.34 (conversion factor) = pounds per day. Loading limitations are applicable to the average monthly, average weekly and maximum daily limitations. EPA will calculate the loading limits based on information received in the NOI.

2. All fecal coliform results must be reported as the geometric mean.

3. Testing not required if chlorine is not used as disinfectant.

4. The effluent limit for chlorine is not quantifiable using EPA approved analytical methods. EPA will use 0.1 mg/L (the Minimum Level for EPA Method 330.3 and Method 330.4) on the Discharge Monitoring Report (DMR) as the compliance evaluation level for this parameter.

5. The effluent limitation for non-salmonid streams is 10 µg/L.

Table 2 MONITORING REQUIREMENTS				
Parameter	Sample Location	Sampling Frequency ¹		Type of Sample
		Lower Flows ²	Higher Flows ³	
Total Flow	Effluent	Daily	Daily	Estimate or measured
BOD ₅	Effluent	Monthly	Weekly	Grab or composite
TSS	Effluent	Monthly	Weekly	Grab or composite
pH	Effluent	Monthly	Weekly	Grab
Fecal Coliform	Effluent	Monthly	2/Month	Grab
Dissolved Oxygen	Effluent	Weekly	Weekly	Grab
TRC	Effluent	Weekly	3/Week	Grab
Floating Solids	Effluent	Daily		Observation
Foam	Effluent	Daily		Observation
Garbage	Effluent	Daily		Observation
Oily Sheen	Effluent	Daily		Observation

¹ At least one sample shall be taken per discharge event.
² Up to and including 10,000 gallons per day (gpd)
³ Over 10,000 gpd

2.4 No Action Alternative

The No Action Alternative entails denying the proposed project coverage under the General Permit. EPA may select the No Action Alternative and deny extending coverage under the permit if significant adverse impacts are identified or the conditions under 40 CFR 122.28 (see above) are not met. If coverage for the discharge is not authorized under the General Permit, Pioneer would have the option of applying to the EPA for an individual NPDES permit.

3.0 EXISTING ENVIRONMENT

The existing environment associated with the Oooguruk Development Project is described in detail in the *Oooguruk Development Project, Environmental Evaluation Document* (Pioneer, 2005) and summarized in the February 2006 COE EA for the Oooguruk Development Project. The topics that are included in the two documents include:

- General Project Location
- Demographics
- Socio-Economic
- Environmental Justice

- Protection of Children
- Land Use and Ownership
- Landforms
- Climate
- Hydrology
- Water Quality
- Vegetation and Algae
- Fish and Wildlife
 - Terrestrial Mammals
 - Freshwater Resources
 - Marine Resources
 - Marine Mammals
 - Birds
- Fisheries
 - Subsistence and Personal Harvest
 - Commercial
 - Sport
- Endangered and Threatened Species
- Special Areas
- Historical and Cultural Resources

4.0 ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION

The environmental consequences of the Oooguruk Development Project, including the proposed action, are described in the *Oooguruk Development Project, Environmental Evaluation Document* (Pioneer, 2005) and summarized in the February 2006 COE EA for the Oooguruk Development Project. The documents address potential impacts to:

- Arctic cisco and broad whitefish migration
- Caribou migration
- Muskoxen
- Marine Mammals
- Permafrost
- Environmental Contamination
- Existing Infrastructure
- Climate Change
- Removal/Rehabilitation of Oil and Gas Infrastructure
- Scientific Information Needs
- Tundra damage
- Subsistence Harvest Success
- Inupiat Culture
- Cumulative Effects

4.1 Coastal Zone Management Program Consistency

The State of Alaska Department of Natural Resources, Office of Project Management and Permitting (OPMP) coordinated a review of the General Permit activities for consistency with the Alaska Coastal Management Program (ACMP), in accordance with State of Alaska statute 46.40 as amended by Chapter 24 SLO 03. The review was conducted to determine if discharges covered by the General Permit would be consistent with the enforceable policies of the ACMP including the enforceable policies of the North Slope Borough and all applicable statewide standards in regulation at the time (6 AAC 80, except the Air, Land and Water Quality Standards in 6 AAC 80.140). Based on the evaluation of the activities that would be covered by the General Permit, on June 3, 2003 the State of Alaska issued its determination to EPA and concurred with EPA's consistency determination that the proposed activities were consistent to the maximum extent practicable with the enforceable policies of the ACMP.

4.2 Essential Fish Habitat

EPA determined that the issuance of the General Permit was not likely to affect essential fish habitat (EFH) species and habitat in the vicinity of the discharges. Under the General Permit, the discharges that would occur to open waters meet water quality standards and have to follow best management practices (BMPs) to prevent habitat degradation. EPA submitted the EFH determination and draft General Permit to the National Marine Fisheries Service (NMFS) on May 21, 2003.

4.3 Endangered Species Act

The Endangered Species Act (ESA) requires federal agencies to consult with the NMFS and the U.S. Fish and Wildlife Service (USFWS) if their actions could beneficially or adversely affect any listed threatened or endangered species. EPA consulted with NMFS and USFWS during preparation of the General Permit. Because discharges from facilities that are permitted under the General Permit have to meet water quality standards, EPA determined that a discharge from a facility operating in compliance with the General Permit should not adversely affect listed species.

4.4 State Certification

Section 401 of the Clean Water Act requires EPA to seek certification from the State that NPDES permits are adequate to meet State water quality standards before permit issuance. The State of Alaska issued its 401 certification for the General Permit on November 19, 2003. A draft State of Alaska authorization for discharge of domestic wastewater under the General Permit has been issued by the Alaska Department of Environmental Conservation (ADEC). Pending EPA's decision to grant coverage for discharge of domestic wastewater under the General Permit, ADEC will issue a final authorization.

5.0 MITIGATION MEASURES

Mitigative measures for the Oooguruk Development Project were addressed in the COE EA. Additionally, a number of permits and authorizations are required for all aspects of this project (Appendix C). The General Permit, and ADEC's 401 certification, includes routine monitoring requirements and submittal of discharge monitoring reports to both EPA and ADEC. Section H of the General Permit includes requirements for developing and implementing BMPs, including the preparation of a BMP Plan, which must be maintained at the facility and available for inspection by EPA, ADEC, or an authorized representative.

According to Pioneer's EED, Pioneer will develop a Storm Water Pollution Prevention Plan (SWPPP) to serve as a BMP Plan to insure compliance with the AKG-33-0000 general permit discharge criteria. The intent is to eliminate, to the extent practicable, contamination of runoff from the gravel mine site, offshore drillsite, and onshore production tie-in pad. The SWPPP will involve measures such as: protecting and monitoring open areas that receive storm water runoff; monitoring the adjoining shoreline for evidence of a contaminated discharge; performing biannual inspections of the drillsite and onshore production tie-in pad and after spring breakup; and immediately cleaning up any spills by removing and disposing the contaminated materials at an approved facility (Pioneer, 2005).

8.0 PUBLIC PARTICIPATION

EPA will publish a *Public Notice* in local newspapers to inform the public of the availability of the EA and FONSI for a 30-day review and comment period. The *Public Notice*, EA and FONSI will also be available on the EPA's Region 10 website: www.epa.gov/r10earth/water/npdes.htm. Pending receipt and review of public comments, EPA will grant coverage for combined domestic wastewater discharges under the General Permit for the Oooguruk Project ODS.

7.0 LIST OF PREPARERS

Colleen Burgh, NEPA Coordinator, EPA Region 10, Alaska Operations Office
Cindi Godsey, NPDES Permit Writer, EPA Region 10, Alaska Operations Office
Hanh Shaw, NEPA Compliance Coordinator, EPA Region 10, Seattle

8.0 REFERENCES

U.S. Army Corps of Engineers, Alaska District, February 2006. The Department of the Army Permit Evaluation and Decision Document for Application No POA-2005-1295

U.S. Environmental Protection Agency, May 21, 2003. Fact Sheet for NPDES Permit Number: AKG-33-0000

U.S. Environmental Protection Agency, November 20, 2003. Permit No. AKG-33-0000, Authorization to Discharge Under the National Pollutant Discharge Elimination System for Facilities Related to Oil and Gas Extraction for Alaska's North Slope Borough and Seaward.

Pioneer Natural Resources Alaska, Inc., June 2005. Environmental Evaluation Document, Oooguruk Development Project

Pioneer Natural Resources Alaska, Inc., July 2006. Oooguruk Development Project, Project Updates.

Pioneer Natural Resources Alaska, Inc. June 2006. Notice of Intent, NPDES General Permit AKG-33-0000

APPENDICES

- Appendix A General Permit AKG-33-0000
- Appendix B Pioneer Natural Resources Alaska, Inc. Notice of Intent, including Figure 1 (map of ODS discharge location)
- Appendix C Permits and Authorizations List (submitted by Pioneer)

Appendix A

Appendix B

Appendix C