RESPONSE TO COMMENTS
for
DRAFT NPDES PERMIT AK0053309
FOREST OIL CORPORATION
OSPREY PLATFORM

A draft National Pollutant Discharge Elimination System (NPDES) permit for the Forest Oil Corporation Osprey Platform was issued for public notice on January 28, 2002. This public notice initiated a 30-day public comment period. The comment period was extended by 7 days after a request for extension by the Cook Inlet Keeper. This document responds to comments received during the public comment period. On March 6, 2002, the EPA received comments from the Cook Inlet Keeper.

1. Comment. The Cook Inlet Keeper commented that "significant adverse changes in ecosystem diversity, productivity and stability" will occur because all standards and criteria designed to protect marine life and water quality will not be met within the area of the discharge because the proposed discharge involves toxic pollutants which will require a mixing zone to dilute the toxicity of the effluent to comply with State water quality standards and criteria.

   Response. A mixing zone is the "area of discharge." The Clean Water Act allows mixing zones at the discretion of the State. Acute and chronic water quality criteria can be exceeded in a mixing zone as long as toxic conditions are prevented and the designated use of the water is not impaired as a result of the mixing zone. Individual State policy determines whether or not a mixing zone is allowed for discharges to waters under their jurisdiction. In accordance with Alaska's water quality standards, the Alaska Department of Environmental Conservation (ADEC) may authorize mixing zones to waters under their jurisdiction. The draft permit proposed effluent limitations based on the proposed mixing zones provided by ADEC in their draft 401 Certification under the Clean Water Act. The effluent limitations in the final permit were based upon the mixing zones that the State authorized in their final 401 Certification under the Clean Water Act for this permit.

2. Comment. The Cook Inlet Keeper commented that the deck drainage should be treated and disposed in a way that will not require a mixing zone. The commenter stated that the Kenai Peninsula Borough Coastal Management Program prohibits the discharge of toxic materials into estuarine waters such as those found in Cook Inlet unless there are no feasible and prudent alternatives.

   Response. The Alaska Department of Governmental Coordination (ADGC) has reviewed and approved this project under the Coastal Zone Management Act. In accordance with Alaska's water quality standards, the Alaska Department of Environmental Conservation (ADEC) may authorize mixing zones to waters under their

jurisdiction. The effluent limitations in the final permit were based upon the mixing zones that the State authorized in their final 401 Certification under the Clean Water Act for this permit.

3. Comment. The Cook Inlet Keeper commented that the draft permit fails to require effluent limitations on any parameter other than oil and grease for the discharge of deck drainage, even though over 39 million gallons of deck drainage [per year] consisting of more than 35 toxic pollutants plus hydrocarbons will be discharged into Cook Inlet each year from the proposed discharge.

   Response. Deck drainage refers to any waste resulting from platform washing, deck washing, spillage, rainwater, and runoff from curbs, gutters, and drains, including drip pans and wash areas. Deck drainage is limited to precipitation runoff which reasonably has the potential to come into contact with process waste waters associated with production, field exploration, drilling, well completion, well treatment, or well workover operations. Therefore, deck drainage could also include pollutants, such as detergents used in platform and equipment washing, oil, grease, and drilling fluids (i.e., muds) spilled during normal operations. In the application for this permit, the permittee has estimated an average flow of 0.108 mgd (million gallons per day) based on precipitation events in Cook Inlet. This flow value is the maximum amount of rainfall recorded over a 24-hour period for the Osprey Platform location. This information was taken from the Kenai weather site and factored for the total amount of deck area that would collect this amount of rain. Since the typical annual precipitation for this area is 20 inches, this would equate to an estimated annual deck drainage discharge of 165,000 gallons per year.

   The fact sheet stated that *Information provided to EPA from other operators in Cook Inlet identified 35 types of cleaners and solvents which are likely to be present in deck drainage*. This does not mean that all 35 types of cleaners and solvents are present at one time nor does it mean that the applicant will use any or all of these. They are a typical account of all the various types of cleaners and solvents that are used amongst all the platforms in Cook Inlet. Oil and grease are the primary pollutants identified in the deck drainage waste stream. Since the applicant is piping all oil and gas extracted from the formation to the on-shore facility for separation, the amount of oil and grease spillage on the platform deck will be minimal and most of the cleaners and solvents used by other platforms in Cook Inlet will not be used on this platform. Additionally, the pollutant concentrations in deck drainage can vary widely from place-to-place and over time making it impractical to establish water quality based limits for specific chemicals in this waste stream.

4. Comment. The Cook Inlet Keeper commented that the draft permit only requires estimates of effluent volumes discharged, but the permit should require actual flow measurement in the deck drainage outfall. The commenter stated that the installation of

a flow measurement device in the oil-water separator would provide an easy and cost effective method to calculate volumes discharged.

Response. The constituents in the deck drainage discharge do not present a significant risk to the environment. The permit requires the applicant to develop best management practices to ensure that the discharge of pollutants are prevented or minimized. Since oil and grease are the primary pollutants of concern with this discharge, the facility has installed an oil-water separator to ensure that the discharge of oil and grease are minimized and that the effluent requirements are met for this discharge. Since the EPA has no current plans to develop additional monitoring requirements or effluent limitations for this discharge, the installation of a flow measurement devise would add additional administrative burden without providing significant information to the Agency. Should the development of additional monitoring or effluent requirements be considered in the future, measured flow volumes will be requested of the applicant at that time.

5. Comment. The Cook Inlet Keeper commented that the fact sheet did not discuss the removal efficiency of the oil-water separator, nor the pass through rates and volumes of the non-hydrocarbon pollutants in the deck drainage discharge.

Response. The fact sheet did not discuss the removal efficiency of the oil-water separator because the permittee is required to install treatment equipment that will meet the final effluent standard. The oil-water separator used by the Osprey Platform is designed for gravity separation of free oil droplets equal to and greater then 20 microns and some solids from wastewater. It is assumed that all other non-solid constituents in the discharge will pass through this system.

6. Comment. The Cook Inlet Keeper commented that the fact sheet did not clearly explain how uncontaminated deck drainage will be identified and segregated from contaminated deck drainage.

Response. Contaminated deck drainage is storm water that comes into contact with process wastewaters associated with production, field exploration, drilling, well completion, well treatment, or well workover operations. Uncontaminated deck drainage is purely storm water runoff. Physical segregation of contaminated and uncontaminated deck drainage is generally accomplished through the use of devices such as berms, curbs, and gutters. Contaminated deck drainage is required to be treated before it is discharge to surface waters. Forest Oil is considering all their deck drainage as contaminated and has installed a six inch berm around the outer perimeter of the platform so that all storm water is discharged through the deck drains where it will be treated with the oil-water separator.

7. Comment. The Cook Inlet Keeper commented that the draft permit should not rely on whole effluent toxicity (WET) analysis as a surrogate measure of chronic toxicity during high flow events because the samples will only be diluted prior to sampling. The commenter suggests conducting WET testing during dry weather conditions to better approximate toxic impacts to marine life and receiving waters.

Response. The control of toxic discharges to waters of the United States is an important objective of the Clean Water Act. To effectively accomplish this objective, EPA uses an integrated approach to implementing water quality standards and developing water quality-based effluent limitations. This integrated approach includes three elements: a chemical-specific approach, a whole effluent toxicity (WET) approach, and a biological criteria or bioassessment approach.

The chemical specific approach is used when there are specific numeric criteria for a chemical in the state's water quality standards. A WET approach protects the receiving water from the aggregate toxic effect of a mixture of pollutants in the effluent. The biological criteria or biological assessment approach is used to assess the overall biological integrity of an aquatic community.

Since there are no specific numeric criteria for the pollutants in the deck drainage discharge and because of the various different types of cleaners and solvents that may be used on the platform, the WET requirement in the permit is used to estimate the whole toxicity of the deck drainage discharge and protect the State narrative criteria for 'no toxics in toxic amounts.'

The permit requires the applicant to sample for WET during a significant rainfall or snowmelt because the deck drainage flow which would occur during a significant rainfall or snowmelt will minimize the residence time in the treatment system, which is expected to maximize the concentration of oil and grease in the effluent. Additionally, the minimum sample volume required to conduct WET analysis is ten gallons within a 24-hour period.