

November 6, 2001

Response to Comments

Draft NPDES Permit for:  
City of Petersburg, Alaska  
Municipal Wastewater Treatment Plant  
NPDES No.: AK-002145-8

On August 9, 2001, the Environmental Protection Agency (EPA) reissued a draft National Pollutant Discharge Elimination System (NPDES) permit to the City of Petersburg, Alaska, for the discharge from the Petersburg Wastewater Treatment Plant. The City of Petersburg owns and operates the plant which treats domestic sewage from local residents and commercial establishments. The average monthly flow rate from the facility is approximately 0.7 million gallons per day (mgd). The City provides primary treatment to all wastewater prior to discharge to Frederick Sound.

The public comment period for the draft permit extended from August 9 through September 10, 2001. EPA received comments on the draft NPDES permit from the following parties: 1) The City of Petersburg via a letter to Mr. Mike Lidgard, EPA, from Mr. Karl Hagerman, Wastewater Operations Supervisor, dated August 30, 2001, 2) The State of Alaska via a letter to Mr. Mike Lidgard, EPA, from Ms. Clynda Luloff of the Alaska Department of Environmental Conservation (DEC), dated August 31, 2001, and 3) The U.S. Fish and Wildlife Service (FWS) via a letter to Mr. Robert Robichaud, EPA, from Ms. Teresa Woods, Field Supervisor, dated September 6, 2001. This document represents EPA's response to each of the comments received during the comment period. The comments are listed below followed by EPA's response.

*Comment: Biochemical Oxygen Demand (BOD).* The DEC previously requested that BOD numbers be reduced from the existing permit limit of 175 mg/L to a monthly average of 140 mg/L and maximum daily of 200 mg/L. After further review, the DEC request that the 140/200 mg/L limits be applied during the months of October 1 through April 30. For the period of May 1 through September 30, the DEC request a monthly average of 175 mg/L and a maximum daily of 200 mg/L. The DEC cites the fact that loading during the summer months is high and that the facility would have difficulty meeting the 140/200 mg/L limits during this period. DEC also state that the facility is exceeding the 30% removal requirements.

The City also expressed concern over the new limitations and with their ability to comply during the summer months when local population increases and dry weather conditions combine to increase BOD levels in the waste stream. The City request that the existing limit of 175 mg/L remain in place as the compliance limit.

*Response.* After review of monthly BOD<sub>5</sub> effluent data for the past four years, EPA agrees with

the City and DEC position that BOD loadings increase during the summer months and that compliance with the proposed monthly average limit of 140 mg/L during the summer is a concern. The data does show, however, that the facility has been in compliance with the proposed limitations during the months of October through April. After review of the BOD<sub>5</sub> data, EPA agrees with the limitations provided in the DEC comment: monthly average of 140 mg/L and maximum daily of 200 mg/L during October through April, and a monthly average of 175 mg/L and maximum daily of 200 mg/L during May through September. These limits reflect the historic and achievable levels of the treatment plant while gaining reductions over the previous permit limits. The limitations contained in the DEC comment letter were also included as stipulations in the Clean Water Act Section 401 certification provided by the State and thus required to be included in the final permit.

*Comment: Shoreline signs.* The DEC states that The City of Petersburg prefers to post only one sign on the shoreline where the outfall line exits to Frederick Sound, and that the City prefers to add a public awareness/education program to the permit in lieu of more signs. The DEC also specifies in its comment letter an education program which will be a stipulation of the state certification. The DEC comments that the education program should be conducted in the month of July. DEC states that print and/or electronic media may be used in addition to, or instead of, pamphlets. The DEC comment specifies which issues should be addressed by such a program and specifies dates for distribution of public education pamphlets and advertisement in the local newspaper. The comment letter also states that a report shall be submitted annually with the December DMR summarizing the actions undertaken in this area over the previous year.

The City comment letter also addresses this issue. The City states that they would much prefer to start a public education program over the requirement to place a sign on the beach at the outfall. The City prefers to educate the public with public notices in the newspaper and by distributing informational pamphlets. The City states that a sign on the beach will cause an unnecessary negative reaction from the public and will be a hardship on the utility. The City states that a sign on the beach is a less informative way to notify the public of potential risks than an education program and request that the draft permit be changed accordingly.

*Response.* The shoreline sign requirement is included in the permit due to a state stipulation as provided in the Clean Water Act Section 401 state certification of the permit. The requirement in the final permit is verbatim from the final state certification. The permit language includes requirements for a sign and also public information requirements. The public information requirements have been added to Section I.E. of the permit which has been retitled "Non-Industrial Source Control and Public Education". EPA encourages the City to work closely with the DEC when implementing the public education and shoreline sign provisions of the permit.

*Comment: Fecal coliform sampling sites.* The City suggest clarification to the fecal coliform sampling sites. Four sites were listed in the draft permit, however, one station identifies two points where the outer edges of the mixing zone touch the shoreline. In effect, five sites are required by the permit. The City suggest that the permit be amended to identify all five sites

separately and also include more defined site location language. The comment includes possible language to describe the two shoreline sites.

*Response.* EPA agrees with the City's comment and the language to clarify the sampling sites will be included in the final permit as suggested.

*Comment: Whole effluent toxicity (WET) testing frequency.* The City ask that the permit clarify the frequency of WET testing required in the first and fourth years of the permit by specifying that the testing is required once per year.

*Response.* EPA agrees with the City's comment. Language clarifying that WET testing is required once per year in the first and fourth years will be added to the final permit as suggested.

*Comment: WET testing requirements.* The City request that under Part I.C.4., the last sentence of the first paragraph be amended to say "This plan shall describe the steps the permittee intends to follow in the event that toxicity testing requirements in Part I.C.2. above, are *triggered*, and should include at a minimum:"

*Response.* The language will be added to the final permit as suggested by the city.

*Comment: BOD and dissolved oxygen (DO).* The Fish and Wildlife Service (FWS) commented that BOD "has been compromised by a high concentration of dissolved oxygen (DO) in prior discharges." The FWS stated the calculated DO value was 6.8 mg/L versus the state minimum of 6.0 mg/L for DO in the receiving water. The FWS recommends increased BOD monitoring be required by the permit should additional DO concentrations be found in exceedance of the state water quality standards.

*Response.* The DO state water quality standard is stated as a minimum for example, the concentration of DO shall not be less than 6.0 mg/L. Calculations presented in the fact sheet demonstrate the far field oxygen depression from this discharge results in a minimum DO concentration of 6.9 mg/L, above the minimum standard, thus, not likely to cause DO standard violations in the receiving water. No additional monitoring above what has been proposed has been included in the final permit.

*Comment: Toxic pollutant sampling.* The FWS noted that the toxic pollutant sampling results in section VII (F1) page 25 of the fact sheet are not consistent with the results in section VII B(5) page 17. In addition, the FWS state that if either Thallium or 4,4'-DDD are detected at concentrations with reasonable potential to violate water quality standards at the edge of the ZID, FWS would recommend effluent limits be established for these pollutants. If these two pollutants continue to be detected in the effluent, FWS recommends that additional work be done to identify the source of these pollutants to the wastewater treatment plant.

*Response.* The FWS is correct that there is contradictory information in the fact sheet regarding

the toxic pollutant analysis. The information presented on page 17 of the fact sheet that two compounds show reasonable potential to exceed criteria is correct, consistent with the information provided in Appendix 1. The statement on page 25 that six compounds have been identified with the reasonable potential to exceed criteria is in error and should have stated that two compounds had been identified. EPA does not agree with the FWS position that limitations should be established for thallium or 4,4'-DDD at this time. As discussed in the fact sheet, each compound was detected in only the most recent toxic pollutant scan and neither compound has ever been detected in any of the previous scans conducted by the facility. There are also no known contributors of these compounds to the treatment facility. Based on this information, EPA is requiring additional monitoring for these compounds during the first year after permit issuance and again in the fourth year of the permit term. If either compound is detected during this testing and if a reasonable potential to exceed criteria exists, the permit could be reopened and limitations developed.

*State of Alaska, 401 Final Certification of the Permit.*

On November 2, 2001, Alaska DEC provided a final 401 certification of the permit which resulted in a minor change to the draft permit which has not been discussed above. The change was the inclusion of a maximum dissolved oxygen (DO) limitation for the effluent in addition to the minimum value included in the draft permit. The ADEC stipulation requires a minimum limitation for DO of 2.0 mg/L and a maximum of 17 mg/L. This range was included in the final permit.