

August 1, 2002

Response to Comments

Draft NPDES Permit for:
City of Skagway, Alaska
Municipal Wastewater Treatment Plant
NPDES No.: AK-002001-0

On May 17, 2002, the Environmental Protection Agency (EPA) reissued a draft National Pollutant Discharge Elimination System (NPDES) permit to the City of Skagway, Alaska, for the discharge from the Skagway Wastewater Treatment Plant. The City of Skagway owns and operates the plant which treats domestic sewage from local residents and commercial establishments. The plant provides primary treatment to all wastewater prior to discharge to Taiya Inlet. An EPA Fact Sheet which provides details on the facility and the discharge was also issued with the draft permit.

The public comment period for the draft permit extended from May 17 through June 17, 2002. EPA received comments on the draft NPDES permit from the following parties: 1) The City of Skagway via a letter to Mr. Mike Lidgard, EPA, from Mr. Robert Ward, Jr., City Manager, dated June 14, 2002, 2) the State of Alaska via a letter to Mr. Mike Lidgard, EPA, from Ms. Clynda Case of the Alaska Department of Environmental Conservation (DEC), dated June 10, 2002, and 3) the Fish and Wildlife Service via a letter from Stephen Brockman, Acting Field Office Supervisor, Juneau, Alaska, to Mr. Robert Robichaud, EPA, dated July 1, 2002. This document represents EPA's response to each of the comments received during the comment period.

Prior to issuance of the draft permit DEC reviewed and provided comments or draft "certification stipulations" on an early draft version of the permit. The comments were provided to EPA in a letter dated April 18, 2002, which was included as Appendix D of the Fact Sheet. The stipulations made in the April letter were addressed in the draft permit. The June comment letter from DEC repeated the stipulations made in the April letter and also raised a few new issues which are addressed below.

Comment: Fecal Coliform Ambient Water Quality Monitoring Requirements. DEC commented that the number of ambient fecal coliform samples required to be collected per station had not been specified in the draft permit. DEC suggests that the final permit include a requirement that the permittee collect one grab sample per station for fecal coliform analysis.

Response. EPA agrees with the comment and will edit the final permit as suggested by DEC.

Comment: Ammonia Effluent Monitoring. The draft permit includes monitoring of ammonia in the effluent and ambient water. DEC commented that the 1996 NPDES permit included ammonia

monitoring and also included a provision which allowed ammonia monitoring to be discontinued if data demonstrated that the effluent had no “reasonable potential” to exceed water quality criteria. DEC commented that Skagway requested and EPA agreed in 1997 to discontinue effluent ammonia monitoring required by the 1996 permit. DEC suggests that effluent ammonia monitoring be removed from the reissued permit. The City provided similar comment and also explained that the existing dilution ratio of 72:1 versus the 14:1 that was available during the previous permit decreases the likelihood of a water quality criteria exceedance. The City also requests that the receiving water ammonia monitoring be removed in the final permit as well as the effluent monitoring.

Response. Under conditions of the previous permit, the City requested removal of the ammonia monitoring requirement in 1997 based on data gathered over 1996-1997. EPA evaluated the data and found no reasonable potential for the discharge to cause or contribute to an exceedance of the criteria and approved discontinuation of monitoring in a letter dated August 7, 1997. Under the draft permit, EPA considered updating the analysis by including monitoring requirements for both the effluent and receiving water. Given the 1996-1997 monitoring results and the significant increase in dilution provided by the new diffuser, the potential for the discharge to cause an exceedance of the ammonia criteria is very low, therefore, ammonia monitoring for effluent and receiving water will not be included in the final permit as requested by DEC and the City.

Comment: Dimensions of the ZID. DEC points out that the preliminary state certification and the draft permit incorrectly listed the ZID dimensions as 139 meters instead of the correct dimensions of 139 feet, as listed in the Fact Sheet.

Response. This error will be corrected in the final permit.

Comment: BOD₅ and TSS monitoring frequency. The City requests that influent and effluent monitoring frequency for BOD₅ and TSS be reduced from the frequency of twice per month in the draft permit to once per month in the final permit. In support of the request the City states that the effluent characteristics remain seasonally uniform. If the frequency cannot be reduced to monthly throughout the year, the City suggests that monitoring be reduced at least for the months of October through April.

Response. EPA considered this request and based on the information below decided to continue the frequency of the previous permit and thus retain the monitoring as proposed in the draft permit. The primary reason for retaining the monitoring at a frequency of twice a month is that the facility, although in compliance with concentration and loading limits, has had problems with compliance with the percent removal requirement. EPA will not reduce monitoring frequency during permit reissuance for a parameter where there is a recent history of noncompliance. This is consistent with the EPA guidance document on reducing monitoring frequencies during permit reissuance (April 19, 1996). Secondly, the monitoring frequency of twice per month for BOD₅ and TSS is reasonable considering the volume of the discharge and the fact the facility is a Clean Water Act Section 301(h) facility providing less than secondary treatment. EPA reviewed

recently issued permits for the cities of Haines, Petersburg, Sitka, Girdwood, Valdez, and Soldotna, and found the proposed twice per month frequency for Skagway to be comparable to these other municipal facilities. Finally, the City states that the effluent characteristics are seasonally uniform. EPA review of the BOD₅, TSS, and flow data found flow to vary seasonally, as expected, but loadings are highly variable by season suggesting a higher monitoring frequency than average would be in order, not less. The frequency, carried forward from the previous permit, will be retained for the final reissued permit.

Comment: BOD₅ and TSS percent removal requirement. The City commented that the previous permit required compliance with the percent removal of BOD₅ and TSS on a quarterly basis and that the draft permit requires compliance on a more stringent monthly basis. The City commented that it has had difficulty complying with the quarterly requirement for BOD₅ and that past data shows it can meet the 30 percent removal requirement on an annual averaging basis. In order to assure compliance the City request an annual averaging period for meeting the 30 percent removal requirement for BOD₅. In order to coordinate with BOD₅ reporting, the City also requests annual averaging for TSS.

Response. Pages B-2 through B-4 of the Fact Sheet provides additional information on the subject of percent removal of BOD₅ and TSS at this facility. EPA regulation requires the facility to meet primary treatment which includes the 30 percent removal for BOD and TSS on a monthly averaging basis. Regulations allow EPA to approve a different averaging period for BOD provided the applicant demonstrates a number of conditions (see Fact Sheet page B-2). One condition that must be met is the applicant showing that not meeting 30% removal is due to circumstances beyond the applicant's control. EPA evaluated the available data and did not find circumstances beyond the applicant's control which would allow EPA to approve an averaging period other than monthly. EPA's review of the data did suggest that the system may have "excessive inflow and infiltration (I/I)" that may be contributing to the facility not meeting 30% removal on a monthly basis. Excessive I/I is specifically excluded by the regulations as a circumstance beyond the applicants control and, therefore, does not justify adjustment to the averaging basis.

The applicant has not met the conditions of 40 CFR125.60(c)(1) for an averaging basis other than monthly, therefore, the final permit retains the monthly basis as proposed. EPA also evaluated the BOD and flow data independently and was unable to satisfy the conditions necessary which would allow adjustment to a longer averaging period.

Comment: Monitoring for Copper in Receiving Waters. The City commented that the new outfall provides sufficient dilution of the effluent so that copper criteria are protected and that monitoring of copper in the receiving water is not necessary. The City requests that the requirement to monitor ambient copper be removed from the final permit. As an alternative, the City suggests monitoring be required only if the permit limits are exceeded.

Response. EPA agrees with the comment from the City. With the construction of the new outfall

and a 72:1 dilution ratio, ambient copper monitoring is not necessary at this time.

Comment: Whole Effluent Toxicity Testing (WET) Requirements. The City requests that toxicity testing be required in year one of the permit and not twice during the permit term as required in the draft permit. The City states that data collected during the previous permit term demonstrates that the discharge has not had an adverse effect on marine life in the vicinity of the outfall. The City states that WET testing in 1996 showed the effluent to be in compliance with toxicity criteria and that no significant changes have occurred since that time. The City also cites the cost of toxicity testing and the fact that the facility treats primarily domestic waste and not industrial waste as reasons supporting their request. The City points out the permit requires additional testing should toxicity be found during testing in the first year.

Response. With additional consideration of the volume and characteristics of the discharge, previous test results, and previous biological monitoring results, the final permit will require WET testing in year one of the permit only as requested by the City. The final permit does require additional testing should the WET toxicity trigger be exceeded during testing in the first year.

Stipulation from the Final State Certification Letter: BOD₅ and TSS Limitations. EPA received a final certification of the permit from ADEC dated July 23, 2002, as required by Section 401 of the Clean Water Act. The certification included stipulations for BOD₅ and TSS concentration limitations that differ from the limitations of the draft certification and draft permit. The final ADEC certification requires a “monthly average effluent limitation not to exceed 140 mg/L and a daily maximum effluent limitation not to exceed 200 mg/L” for both BOD₅ and TSS.

Response. The draft permit contains BOD₅ and TSS limitations that are seasonally based and are identical to the limitations of the existing permit. Proposed limitations for May 1 through September 30 are equal to or greater (i.e., less stringent) than those presented in the final state certification for both parameters. Limitations in the draft permit for October through April were lower, or more stringent than the maximum limitation provided in the final state certification.

Federal regulation (40 CFR 124.53(e)) requires EPA to incorporate requirements of the state certification into the final permit provided the requirements are necessary to meet the Clean Water Act or State law. The ADEC stipulation for the BOD₅ and TSS requirements include a reference to State Regulation 18 AAC 15.090 as rationale for the limitations. The State Regulation allows ADEC to attach terms and condition to a permit that it considers necessary to ensure that all applicable state water quality criteria will be met. Since the stipulation of the certification are justified by ADEC as necessary to meet State law, the revised BOD₅ and TSS limitations specified in the final certification will be incorporated into the final permit. The certification requires BOD₅ and TSS not to exceed 140mg/L and 200 mg/L on a monthly average and daily maximum basis respectively. Since the limitations of the draft permit exceed those values for the May through September period, the limitations required by the certification will be incorporated into the final permit for this time period. The proposed limitations for October through April meet the state certification requirement since they “do not exceed” the specified

values and will, therefore, be retained in the final permit. The October through April limits will also be retained since federal regulations do not allow less stringent limits in reissued permits as discussed below.

Federal regulation (40 CFR 122.44(l)) requires reissued NPDES permits to include effluent limitations at least as stringent as the previous permit unless the circumstances on which the previous permit was based have “materially and substantially changed” since the time the permit was issued. Review of effluent data for the past permit term shows that the facility has been in compliance with the October through April BOD₅ and TSS limitations. No justification has been provided that less stringent limitations for these parameters during the winter period are warranted. Therefore, the final limitations for the October through April period for BOD₅ and TSS will remain as proposed in the draft permit.

Loading limitations of NPDES permits are directly related to concentration limitations and, therefore, adjustment to the final permit is also needed for the BOD₅ and TSS loading limits for the May 1 through September 30 period. Loading limits are derived by multiplying the concentration limit (mg/L) by the facility design flow (mgd) and a conversion factor (8.34). The calculation results in a monthly average loading limit of 740 lbs/day and a daily maximum of 1050 lbs/day for both parameters during the summer period.

BOD₅ and TSS effluent data for the period of May through September over the past five years was reviewed to determine if the facility is able to comply with the final limitations of 140 mg/L monthly average and 200 mg/L daily maximum. During the last five years the TSS effluent concentration ranged from 35-121 mg/L, well below the final limits. The highest TSS value in the last two years was 73 mg/L. The BOD₅ effluent range for the last five years was 39-140 mg/L. The 140mg/L value was monitored in 1999. The highest value during the last two years was 130 mg/L. The facility discharge has been well below the BOD₅ and TSS loading limitations of the final permit. The facility is capable of complying with the final BOD₅ and TSS limitations and a compliance schedule is not necessary.

U.S. Fish and Wildlife Service Comments: The U.S. Fish and Wildlife Service (Service) commented that they are in agreement with the permit specifications based on the information provided in the accompanying fact sheet. The Service specifically commented that they support WET testing requirements. In particular, the Service agrees with the permit requirement that if toxicity is detected in the first year, accelerated testing is then required.

Response. EPA acknowledges the Service’s review and comments provided on the draft permit. Although the WET testing was revised, as discussed in a previous response to comment, the first year testing along with an accelerated testing requirement has been retained in the final permit.

