

## EPA's Response to Comments

### on the Draft NPDES General Permits for: Small Publically Owned Treatment Works and Other Small Treatment Works in the State of Alaska NPDES Nos.: AKG-57-0000 and AKG-57-1000

On September 26, 2003, the Environmental Protection Agency (EPA) proposed issuance of general National Pollutant Discharge Elimination System (NPDES) permit numbers: AKG-57-0000 and AKG-57-1000 for small publically owned treatment works (POTWs) and other small treatment works treating domestic sewage in Alaska pursuant to the provisions of the Clean Water Act (CWA) 33 U.S.C. 1251 et seq. One general permit is applicable to those treatment works discharging to marine waters (57-1000) while the second general permit is applicable to treatment works discharging to fresh waters (57-0000).

The State of Alaska, Department of Environmental Conservation, also issued notice of their intent to certify that the subject dischargers will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the Clean Water Act.

The public notice for comments on the draft permits and State certification was published in the Anchorage, Fairbanks, and Juneau, Alaska newspapers on September 26, 2003. The comment period extended until November 10, 2003. EPA received comments on the draft NPDES permits from the following:

#### Comment Letter Reference Number/Commenter/Date

1. Department of the Air Force, Pacific Air Forces via a memorandum from Steven E. Armstrong, Col, USAF, Commander, dated November 10, 2003.
2. Teck Cominco Alaska Incorporated (TCAK) via a letter from R.G. Scott, General Manager, dated November 10, 2003.
3. NTL Alaska, Inc. on behalf of the Ukpeagvik Inupiat Corporation (UIC) of Barrow, Alaska via a letter from Michael R. Pollen, President, dated November 10, 2003.
4. NTL Alaska, Inc. via electronic mail from Michael R. Pollen, President, dated November 10, 2003.
5. BP Exploration (Alaska) Inc. via a letter from Stan F. Gates, Technical and Regulatory Team Lead, dated November 10, 2003.
6. Alaska Department of Environmental Conservation, Facility Construction and Operation Village Safe Water, on behalf of Metlakatla Indian Community and general comments, via a letter from Doug Poage, P.E. Village Safe Water Program, dated November 10, 2003.
7. CRW Engineering Group, LLC, via a letter from Jeff Stanley, P.E., dated November 10,

2003.

8. U.S. Department of Transportation, U.S. Coast Guard, via a letter from K.H. Calvo, Commander, U.S. Coast Guard, Commanding Officer, dated November 5, 2003.
9. City and Borough of Juneau's Wastewater Utility, via electronic mail from Liam Carnahan, dated November 10, 2003.
10. Chugach Support Services, Inc. (re. USAF Galena Facility) via a letter from Michael L. Mott, Project Manager, King Salmon/Galena Project, dated October 8, 2003.

Comments related primarily to the Lena Point Subdivision in Juneau, Alaska (City and Borough of Juneau):

11. U.S. Department of Commerce, National marine Fisheries Service via a letter from James W. Balsiger, Administrator, Alaska Region dated November 10, 2003.
12. Thomas E. and Susan D Kocyba via a letter dated October 30, 2003.
13. Lena Extended Neighborhood Association via a letter from Kirk Miller, President, John Hudson, Vice President, and Carl Dierking, Secretary dated November 3, 2003.
14. Juneau URGENT Care and Family Medical Clinic via a letter from Louis M. Packer, MD and Ellen Rose Varosi dated November 5, 2003.
15. Carl F. Dierking via a letter dated November 4, 2003.

This document represents EPA's response to each of the comments received during the comment period. The comments have been sorted into the following categories: Lena Point Subdivision, Chlorine Limitations, BOD<sub>5</sub> and TSS Limitations, Monitoring (cost and frequency), and Miscellaneous. The comments within each subcategory are summarized followed by EPA's response. Comment letters are referenced using the letter numbers listed above.

#### **City and Borough of Juneau, Lena Point Subdivision:**

Comment. In letter No. 11, the National Marine Fisheries Service concurs with EPA's finding of no adverse effects to Essential Fish Habitat (EFH) for 21 of the 22 proposed treatment facility discharges under the marine waters general permit. In the letter, the NMFS notifies EPA of the recent discovery of a Habitat Area of Particular Concern (HAPC) at the discharge site for the Lena Point Subdivision. NMFS indicates that adverse effects to EFH are likely to occur from the Lena Point Subdivision discharge at the proposed location. The letter discusses in detail the results of a recent on-site habitat survey. Biologists documented the existence of a large, dense grove of soft coral colonies located immediately downslope of the proposed outfall. The corals "...are living marine substrates and constitute EFH for several species of federally managed fish and in addition are a Habitat Area of Particular Concern (HAPC) because of their ecological importance, sensitivity to disturbance, and rarity."

Response. In the Fact Sheet for the general permits EPA states that discharges to receiving water considered to be a sensitive area by EPA or ADEC should not be covered under the general permit but instead be authorized by individual permits. An individual permit would allow evaluation of unique circumstances presented by a sensitive area and allow for specific permit conditions as appropriate. NMFS comments that HAPC warrant special consideration in order to avoid disturbance based on their ecological importance and sensitivity. EPA agrees with the comment and will, therefore, not include the Lena Point Subdivision under the general permit.

Comments. Comment letters Nos. 12, 13, 14, and 15 oppose authorization under the general permit to the Lena Point Subdivision for a number of reasons including the proposed treatment method, the existence of sea pen colony as discussed above, other environmental concerns, and proximity to existing residences.

Response. As noted in the previous comment, the Lena Point Subdivision is not to be authorized under the general permit due to the Habitat Area of Particular Concern cited by NMFS. As such, it is not necessary for EPA to respond to each comment raised in letters 12-15 at this time. Should the permittee request coverage under an individual permit, those commenting on Lena Point Subdivision will be notified and the comments will be addressed by EPA prior to issuance of a final permit.

## **Chlorine**

Chlorine compliance. The commenter is concerned that the permit lists the chlorine limits in the permit which are actually below detection levels. "Therefore, the permits should only list the total residual chlorine permit limit of 0.10 mg/L of which is the accuracy of field monitoring and then as a note, mention why the other limit permit limit of 0.011 or 0.0075 mg/L is not physically possible for the facilities to monitor." (1)

TRC results at 0.1 mg/L should be considered in compliance with the permit limits. The commenter states that analytical results equal to or less than a permit limit or minimum level are in compliance with the permit. (2)

The 0.10 mg/L TRC limit has too many significant figures and the compliance limit should be 0.1 mg/l not 0.10 mg/L.

General permit footnote 4 to tables 1, 2, and 3 should be revised to state, "When the total residual chlorine limitations is lower than 0.1 mg/L, EPA will use 0.1 mg/L as the compliance evaluation level (i.e. daily maximum concentrations at or below 0.1 mg/L will be considered in compliance with the limitation).

Ukpeagvik Inupiat Corporation comments that the proposed chlorine limit is 25% of the current level and request a higher limit with consideration that the Middle Salt Lagoon will provide for dissipation of any residual chlorine prior to the discharge point to the Arctic Ocean. (3)

## **BOD<sub>5</sub> and TSS Limitations**

Treatment efficiency in Alaska. Due to temperature conditions in Alaska, there would be a reduction of treatment efficiency that would result in permit exceedences for BOD<sub>5</sub>, TSS and fecal coliform. Due to the additional passing of solids, more disinfection would be required to meet permit limits. (1)

Exceedences of BOD<sub>5</sub> and TSS that are a result of freezing in the treatment lagoon should be recognized as upset conditions listed in Section IV.G. of the permit. (1)

The Air Force commented that several of their facilities are in a mothball status where they are designed to support a large number of personnel but are currently supporting only a small fraction of the design. Example cited 10% of personnel compared to design. The Air Force comments that this situation lends itself to diluted influent and makes compliance with the percent removal requirements difficult. Request that percent removal requirements be waived when in situation of operating well below design conditions. (1)

Percent removal for BOD<sub>5</sub> and TSS to lagoon systems is inappropriate since typically the lagoons are seasonal dischargers and applying monthly average percent removal criterion is not technically valid. (4)

The detention time for continuously discharging aerated lagoons is typically several months and , therefore, it is inappropriate to apply percent removal criterion to aerated lagoons. (4)

During spring thaw systems may experience diluted influent due to I and I from the collection system and result in noncompliance with the permit limit (4).

Commenter suggest it is unreasonable to test lagoon influent wastewater since during high rainfall, the influent will be dilute and 85% removal may not be met, and, costs associated with additional monitoring. (6)

## **Monitoring (cost and frequency)**

Monitoring under upset conditions. “The multiple sampling required in section III will be very difficult and cost prohibitive if there is a system upset.” (1)

Mixing zone sampling. The Air Force expressed concern for sampling within the mixing zone during adverse environmental conditions due to safety concerns. “The Air Force requests reducing the collection of wastewater samples at the mixing zone to the summer months when it

is safe and when dilution is occurring.” (1)

BP Exploration (Alaska) Inc. recommends that quarterly reporting apply to all authorizations in this general permit. The draft permit states facilities with a design flow of 5,000 gpd or greater must report monthly. Quarterly reporting would reduce administrative burden of submitting monthly reports. (5)

The cost of the draft lagoon sampling and testing provisions for MIC will be about \$8,000 per year. The commenter states that the testing is not essential and cost will be difficult to absorb. The commenter suggest quarterly sampling and testing for this facility (0.1-1.0 mgd) at a cost of \$800 per year. (6)

Commenter suggest that for design flow of 5,000 to 100,000 gpd, sample semi-annually, for less than 5,000 gpd, test annually. (6)

Commenter (7) suggest that EPA authorize on-site testing of chlorine residual and pH testing. Chlorine residual test method should allow color comparator testing and pH test paper should be authorized for pH testing. (6)

Proposed monitoring requirements for facilities with design flows of 5,000 to 100,000 gpd will place a significant burden on small remote villages with often very limited financial resources. The commenter provided a breakdown of monitoring costs which totaled \$8,540 annually. With 75 customers for this example the monthly cost was \$9.50 per customer. The commenter offered the following suggestions:

- 1) Reduce frequency of sampling by changing the three categories in the draft permit to 250,000-1,000,000 gpd, 75,000-250,000 gpd, and less than 75,000 gpd, or create a new table for Category 2 facilities less than 75,000 gpd. Commenter provided additional reasoning related to seasonal dischargers and long retention times for lagoons in arctic environments.
- 2) Reduce or eliminate influent monitoring once the waste stream is characterized.
- 3) Allow for reduction of monitoring after a year or two of consistent results.
- 4) Encourage development of regional laboratories to reduce shipping and other costs.

City of Juneau comments that Auke Bay WWTP will have to double frequency of monitoring for most parameters and require influent sampling for the first time. The City comments that this is twice the frequency required at Juneau-Douglas WWTP which is many times larger than Auke Bay. (9)

The City of Juneau commented that section III.A. of the permit states that sampling must be representative of volume and nature of the discharge, and the City interprets this statement as a requirement to install and maintain a flow meter and a composite sampler. Also, the City states that this will require purchase of an influent sampler. (9)

The City of Juneau commented that section III.A., second paragraph, requires sampling whenever a discharge occurs that can cause a violation is impractical, will require an inappropriate amount of sampling. (9)

The City of Juneau commented that section III.D. requires that sampling during training must be included unless written notification is provided to EPA and ADEC. The City commented that this is far more restrictive than necessary and will serve as a disincentive to conduct training. (9)

The City of Juneau commented that section III.F. refers to “original strip chart recordings” but the language does not include other data recording and archiving options. (9)

The City of Juneau commented that under section VI.4., the city in the past has included data for an appropriate number of full weeks into the DMR for a particular month. The commenter suggest language for revising this definition referring to a “reporting month” or “reporting period”. (9)

## **Miscellaneous**

Site-specific permits needed. “Alaska presents a very difficult problem for developing a general permit to apply to so many different facilities with such a wide range of extreme environmental and geological conditions...In the end, more site-specific permits need to be written from an arctic engineering perspective.”(1)

Compliance schedules. The Air Force “...request a grace period established for old facilities that have problems meeting the new permit limits. (1)

State permits. The Air Force notes that the State of Alaska has an engineer plan review, mixing zone authorization, and oversight of compliance with state standards in the receiving water, while EPA administers the NPDES program. The comment is to let the State have “supremacy” of the permit and use the draft general permit as guidance for ADEC issued permits.

UIC/NARL request that the Water Treatment Plant discharge, which was permitted under both the original EPA permit and the ADEC permit, also be permitted under the new general permit and associated state authorization. (3)

Commenter thanked EPA and ADEC for developing the draft permits and comments that the permits will make permitting of these facilities and reissuing permits much more efficient. (7)

The U.S. Coast Guard comments that they have two facilities that may potentially be covered under these permits: Coast Guard LORAN Station on Attu (AK-0020630) which discharges to Massacre Bay, and Coast Guard LORAN Station Shoal Cove on Revillagigedo Island (AK-0026352) which discharges to a small freshwater creek. Commenter request that the two facilities be included in the final general permits. (8)

City of Juneau request 150 to 180 days to develop the QAP instead of the proposed 90 days. (9)

The City of Juneau provides minor editorial changes to the permit. (9)

The City of Juneau comments that definition VI.8. is confusing since design flow includes a reference to peak flow rate within the definition. (9)

The City of Juneau provided five comments on the fact sheet, four of which were editorial in nature and one repeating a comment which repeats a comment provided on the permit regarding sampling of the influent in order to determine percent removal. (9)

Chugach Support Services (CSS) is the Air Force Base Operating Services contractor for the USAF Galena facility. CSS submit a request that EPA rescind the Notice of Intent for this facility and that the facility not be covered under the NPDES general permit, since the facility does not discharge to navigable waters of the U.S. CSS presented a letter from 1976 where EPA concluded that there was not a discharge to waters of the U.S. CSS also reports on recent site inspection conducted by CSS that support CSS request. (10)