

**Department of Environmental Conservation  
Response to Comments**

**For**

**Kodiak Island Borough Landfill Leachate Treatment Facility**

**APDES Permit No. AK0053481**

**Public Noticed February 12, 2021 – March 13, 2021**

**April 6, 2021**



**Alaska Department of Environmental Conservation  
Wastewater Discharge Authorization Program  
555 Cordova Street  
Anchorage, AK 99501**

## **1 Introduction**

### **1.1 Summary of Facility / Permit**

The Kodiak Island Borough (KIB) owns and maintains the KIB Landfill, located approximately 6 miles northwest of Kodiak, AK. The KIB Landfill started as an ad hoc dump in the 1960s and since then has developed into a Class One landfill consisting of approximately 30.2 acres. Solid waste disposed at the landfill includes municipal solid waste, baled waste from industrial, commercial, and institutional sources, construction, demolition, landscaping, fishing, and boat debris. In order to accommodate an additional 40 years of use and growth, the KIB has been expanding the landfill site. In 2015 construction of a leachate collection and conveyance system, installation of a liner in an expanded cell, and leachate treatment plant were completed. Future upgrades include construction of an addition cell and expansion in the southwestern area of the landfill to accommodate the disposal of inert construction, demolition, and landscaping debris.

DEC issued an APDES permit for the landfill leachate discharge in 2015. The permit expired on August 31, 2020. Under the Administrative Procedures Act and state regulations at 18 AAC 83.155(c), an APDES permit may be administratively extended (i.e., continues in force and effect) provided that the permittee submits a timely and complete application for a new permit prior to the expiration of the current permit. A timely application for a new permit was submitted by KIB on March 4, 2020; therefore, the 2015 permit is administratively extended until such time a new permit is reissued.

### **1.2 Opportunities for Public Participation**

The Alaska Department of Environmental Conservation (DEC or the Department) proposed to issue an Alaska Pollutant Discharge Elimination System (APDES) wastewater discharge permit the Homer WWTF. To ensure public, agency, local governments and tribal notification and opportunities for participation, the Department:

- identified the permit on the annual Permit Issuance Plan posted online at: <http://dec.alaska.gov/water/wastewater/>
- notified local governments and potentially affected tribes that the Department would be working on this permit via letter, fax and/or email
- posted a preliminary draft of the permit online for a 10-day applicant review January 6, 2021 and notified tribes and other agencies
- posted the draft of the permit online for a 30-day public comment period on February 12, 2021
- posted the proposed final permit on-line for a five-day applicant review on March 23, 2021
- sent email notifications via the APDES Program List Serve when the preliminary draft, draft, and proposed final permits were available for review

The Department received comments from the Environmental Protection Agency (EPA). The Department did not receive any comments from any other agencies, the general public, or the permittee. This document summarizes comments submitted by EPA, and the justification for any action taken or not taken by DEC in response to the comments.

### **1.3 Final Permit**

The final permit was adopted by the Department on April 6, 2021. There were changes from the public noticed permit. Any significant changes are identified in the response to comments and reflected in the final documents.

## **2 5-Day Biochemical Oxygen Demand Influent Monitoring (BOD<sub>5</sub>)**

### **2.1 Comment Summary**

#### **Permit Section 1.2**

Because the permittee had significant problems meeting ammonia limits, which suggests a problem with the denitrification process, EPA recommended that the permittee monitor influent BOD<sub>5</sub>. Denitrification requires sufficient BOD<sub>5</sub> in the anoxic tanks to convert nitrate to nitrogen gas. When influent ammonia load is high and influent BOD<sub>5</sub> concentration is low, a supplemental carbon source may be required to meet effluent limits. EPA stated that influent BOD<sub>5</sub> monitoring results can be used to assess the relationship between influent BOD<sub>5</sub> and the efficacy of the denitrification process and the need for supplemental carbon to meet permit limits.

#### **Response:**

DEC agrees with EPA, that an assessment of the relationship between influent BOD<sub>5</sub> and the efficacy of the denitrification process would be beneficial to the permittee for determining the need for supplemental carbon; however, influent BOD<sub>5</sub> monitoring results will not be used by DEC to evaluate KIB's compliance with effluent limits. Therefore, influent BOD<sub>5</sub> monitoring is not a necessary permit requirement and has not been added to the permit. DEC, however, recommends that KIB monitor, as a part of their regular process control procedures, influent BOD<sub>5</sub> and ammonia in order to help determine their supplemental carbon requirements.

No changes were made to the permit based on this comment.

## **3 Ammonia Monitoring Frequency**

### **3.1 Comment Summary**

#### **Permit Section 1.2**

EPA recommended that because of the level of the permittee's non-compliance with ammonia limits, which suggests that the discharge is not of a consistent quality, ammonia monitoring be increased from

1/quarter to 1/month. The increased monitoring will ensure an adequate characterization of the discharge and a greater level of compliance.

**Response:**

DEC agrees with EPA and has, therefore, increased ammonia monitoring from 1/quarter to 1/month in Permit Section 1.2, Table 2.

## **4 5-Day Applicant Review**

### **4.1 Comment Summary**

KIB submitted comments on the proposed final permit. These comments included the request for DEC to change the Whole Effluent Toxicity (WET) sampling method from 24-hour composite to grab as was in the previous permit because the facility does not have a way to collect a 24-hour composite sample. KIB also questioned whether their Discharge Monitoring Reports (DMR) should be submitted monthly rather than quarterly because ammonia is monitored monthly. Additionally, KIB brought to DEC's attention an error in Permit Section 1.2 Table 2 whereby BOD<sub>5</sub> appeared twice.

**Response:**

24-hour composite sampling for WET is more appropriate than a grab sample for a facility discharging on a continuous basis. In addition to automatic sampling equipment, a 24-hour composite sample can be manually obtained by combining eight equal volume grab samples collected at equal time intervals over a 24-hour period at the same location. No changes have been made to the permit based on this comment.

DEC agrees that monthly DMR submittal rather than quarterly is more appropriate for this facility. Therefore, the DMR reporting requirement in the permit has been changed from 1/quarter to 1/month.

An error had occurred in the parameter column of Permit Section 1.2, Table 2 whereby BOD<sub>5</sub> appeared twice. DEC corrected the error in the final permit.