Department of Environmental Conservation
Response to Comments

for

Valdez Wastewater Treatment Facility APDES

Permit No. AK0021431

Public Noticed December 30, 2025 – January 29, 2026

February 6, 2026

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

1 Introduction

1.1 Summary of Facility / Permit

The City of Valdez owns, operates, and maintains the Valdez Wastewater Treatment Facility (WWTF), a publicly owned treatment works. It is located approximately four miles east of the city of Valdez. The WWTF consists of two-aerated lagoons and a third chlorine contact pond. It treats wastewater from a residential and commercial business population of approximately 3,800. There are no significant industrial user contribution. Discharge to Port Valdez shall occur at a maximum daily rate of 2.5 million gallons per day. A mixing zone is proposed for ammonia, fecal coliform bacteria, enterococci bacteria, dissolved oxygen, temperature, and whole effluent toxicity.

The National Pollutant Discharge Elimination System (NPDES) permit for the facility was initially issued by the Environmental Protection Agency (EPA) in December 1978. EPA reissued the permit in 1985, 1990, and 2002. Authority of the permit transferred to DEC in October 2008 when EPA approved the Alaska Department of Environmental' s (the Department or DEC) application to administer the NPDES Program as the Alaska Pollutant Discharge Elimination System (APDES) Program. The NPDES permit was administratively extended (continued in force and effect) until 2015 when DEC reissued it as an APDES permit. The permit was subsequently reissued in April 2021 for a five-year permit term.

1.2 Opportunities for Public Participation

DEC proposed to issue an APDES wastewater discharge permit for the Valdez WWTF discharge. 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: Permit Issuance Plan | AK Dept. of Environmental Conservation
- 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 on-line for a 10-day applicant review December 3, 2025 and notified tribes and other agencies
- posted the public notice announcing a 30-day public comment period on the Department's public notice web page on December 30, 2025
- sent email notifications via the APDES Program List Serve when the preliminary draft and draft permits were available for review

The Department received comments from the City of Valdez as prepared for them by Pacific EcoRisk, Environmental Consulting and Testing. The Department did not receive any other comments. This document summarizes comments submitted by the City of Valdez, and the justification for any action taken or not taken by DEC in response to the comments. The City of Valdez waived 5-day applicant review of the final permit.

1.3 Final Permit

The final permit was adopted by the Department on February 6, 2026. 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 Whole Effluent Toxicity (WET) Sample Handling

2.1 Comment Summary

Permit Section 1.4.2 and 1.4.3

The City of Valdez states that since 2001, out of 16 WET samples, only six arrived at their testing facility, Pacific EcoRisk, on time. Furthermore, the ten samples that did not arrive on time were two or more days late and that the limitations of shipping services in the Valdez area makes consistently meeting the 36-hour holding time an unresolvable issue. They request the deletion of the requirement for the permittee to document and describe how the issue will be resolved whenever the 36-hour holding time cannot be met claiming that it presents an unintended pretense to the public that a 36-hour delivery time is feasible and/or should be reasonably expected. Relatedly, the City of Valdez is unable to collect samples on days one, three, and five and adhere to the 36-hour holding time due to the same shipping constraints. They state that the days one, three and five sampling requirement conflicts with EPA's test method manual specifications for the single sample renewal frequency in Section 8.5.4 of EPA/600/R-95-136 [*Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*] and EPA-821-R-02-013[*Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*]) which states "In static-renewal tests, each grab or composite sample may also be used to prepare test solutions for renewal at 24 h and/or 48 h after first use…. *"*.

The City of Valdez requests that DEC revise Permit Section 1.4.2.3 by replacing testing on days one, three, and five with "on a schedule that will permit their use in a manner consistent with the sample hold-time and sample use-time specifications of the EPA test method manuals."

Response

Section 8.5.4 of *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, (EPA/821/R/02-014, October 2002) states "If the data from the samples are to be acceptable for use in the NPDES Program, the lapsed time (holding time) from sample collection to first use of each grab or composite sample must not exceed 36 h…In the isolated cases, where the permittee can document that this delivery time cannot be met, the permitting authority can allow an option for on-site testing or a variance for an extension of shipped sample holding time. The request for a variance in sample holding time, directed to the USEPA Regional Administrator under 40 CFR 136.3(e), should include supportive data which show that the toxicity of the effluent sample is not reduced (e.g., because of volatilization and/or sorption of toxics on the sample container surfaces) by extending the holding time beyond more than 36 h. However, in no case should more than 72 h elapse between collection and first use of the sample. In static-renewal tests, each grab or composite sample may also be used to prepare test solutions for renewal at 24 h and/or 48 h after first use, if stored at 0-6°C, with minimum head space, as described in Subsection 8.5. If shipping problems (e.g., unsuccessful Saturday delivery) are encountered with renewal samples after a test has been initiated, the permitting authority may allow the continued use of the most recently used sample for test renewal".

DEC concurs with the City of Valdez and has removed the specified days of sample collection from Permit Section 1.4.2.3 and deleted Permit Section1.4.2.5 because these permit sections do not accurately reflect the details outlined in Section 8.5.4 of *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*. The permit language in Section 1.4.2.4 already requires that the presence of chronic toxicity be determined as specified in this manual, making it the appropriate resource for sampling methods.

3 WET Permit Statistics

3.1 Comment Summary

Permit Section 1.4.2.5

The City of Valdez states that defining chronic toxic units (TUc) as 100/no observed effect concentration (NOEC) does not provide any leeway to report using EC25 (effective concentration 25%) or IC25 (inhibition concentration 25%). They state that for the NPDES permit program, point estimation techniques are the preferred statistical methods in calculating end points for effluent toxicity tests. Furthermore, the IC is able to calculate down closer to the true NOEC Additionally, Alaska Water Quality Standards at 18 AAC 70.030 (b) allows other equivalent chronic toxicity endpoints that are approved by the Department, such as the IC25 which may be used in place of the NOEC. The City of Valdez requests that the permit states that results must be reported in TUc (chronic toxic units), where TUc = 100/no observed effect concentration (NOEC) or TUc = 100/EC25 or IC25, as appropriate.

Response

Both the NOEC and IC25 are recognized as primary endpoints for chronic WET tests. The NOEC is typically applied to quantal survival endpoints, while the IC25 is used for non-quantal endpoints such as growth and reproduction. EPA guidance indicates that IC25 is generally preferred for chronic endpoints because it provides a statistically reliable measure of growth or reproduction inhibition. Although EC endpoints are referenced in EPA WET guidance documents, they are not prioritized for compliance reporting. For this permit issuance, NOEC and IC25 shall serve as the chronic WET testing reporting endpoints. Permit Section 1.4.2.5 has been revised to specify that TUc = 100/NOEC for survival endpoints and TUc = 100/IC25 for all other test endpoints.

4 Clarification: Aquatic Life Criteria for Free Cyanide

Consistent with 18 AAC 70, DEC has added a footnote to the permit effluent limit table clarifying that aquatic life criteria for free cyanide shall be measured as weak acid dissociable cyanide or equivalent approved EPA methods.