

**Department of Environmental Conservation  
Response to Comments**

**For**

**Aurora Energy Services, Seward Coal Loading Facility**

**APDES Permit No. AK0053732**

**Public Noticed November 19, 2015 – December 21, 2015**

**February 29, 2016**



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

## **1 Introduction**

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

The Seward Coal Loading Facility (Facility) is operated by Aurora Energy Services. Facility operations include unloading coal from railcars, conveying the coal to storage, reclaiming the coal from storage, and loading the coal onto bulk carrier ships for open ocean transport and delivery to market. Incidental coal is discharged during normal loading operations from the belt conveyor (BC) system BC-14 and the shiploader system located at the terminus of BC-14, which transfers the coal over Resurrection Bay to bulk carrier ships. The Facility is located in the City of Seward, Alaska at the head of Resurrection Bay. The permit proposes authorizing a 21-acre project area zone of deposit (ZOD) on the seafloor surrounding the south end of BC-14 and the shiploader system for residues (i.e., coal).

### **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 to Aurora Energy Services, for the Seward Coal Loading Facility. To ensure public, agency, local government and tribal notification and opportunities for participation, the Department:

- identified the permit on the annual Permit Issuance Plan posted online at: <http://www.dec.state.ak.us/water/wwdp/index.htm>
- notified potentially affected tribes and local governments 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 May 1, 2015 through May 14, 2015 and notified tribes, local governments, and other agencies
- formally published public notice of the draft permit on July 2, 2015 in the *Seward Phoenix Log* and posted the public notice on the Department's public notice web page
- public noticed the draft permit from July 2, 2015 through August 17, 2015 and conducted one public meeting/hearing on the draft permit in Seward at the Community Library Museum on August 5, 2015
- formally published a second public notice of the revised draft permit on November 19, 2015 in the *Seward Phoenix Log* and posted the public notice on the Department's public notice web page
- public noticed the revised draft permit from November 19, 2015 through December 21, 2015
- posted the proposed final permit on-line for a 5-day applicant review

- sent email notifications via the APDES Program List Serve when the preliminary draft, draft, and proposed final permits were available for review

In the second public notice, the Department notified the public and those commenters involved with the first draft permit that should an individual or entity desire for their comments to be responded to in DEC's response to comment document generated after the public comment period closes, written comments must be submitted during the second public comment period. Comments from the first public notice period would not be responded to in the response to comment document. However, comments received during the first public notice period were reviewed and used, where determined appropriate by DEC, to make updates to the Revised Draft Permit and Fact Sheet that underwent public notice from November 19, 2015 to December 21, 2015.

The Department received written comments from four interested parties on the Revised Draft Permit and Fact Sheet. The Department requested comment from the Departments of Natural Resources and Fish and Game, the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the U.S. Environmental Protection Agency (EPA). EPA was one of the four interested parties that provided comments on the revised draft permit.

This document summarizes the comments submitted 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 March 2, 2016. There were changes from the public noticed permit. Significant changes are identified in the response to comments and reflected in the final fact sheet for the permit.

## **2 General Support and Opposition for the Permit**

### **2.1 Comment Summary**

The Department received comments of both general support and opposition to the permit.

#### **Response:**

DEC evaluated all comments and made revisions to the Proposed Final Permit and Fact Sheet as determined appropriate.

### 3 Comments on Permit

#### 3.1 Comment Summary

One commenter indicated that DEC should review the use of the terms, “aggregate”, “aggregate coverage”, “continuous coverage”, “aggregate continuous coverage” and clarify the use of terms in the permit to avoid unnecessary confusion and ensure enforceability of the permit.

**Response:**

DEC standardized the use of the term “aggregate area of continuous coal coverage” throughout the documents.

#### 3.2 Comment Summary

Two commenters indicated that DEC should review the use of the terms “trigger” and “limit” and clarify the use of terms in the permit to avoid unnecessary confusion and ensure enforceability of the permit.

**Response:**

DEC standardized the use of the terms “limit” to refer to a permit limit that is enforceable and “trigger” to refer to when the adaptive management approach is referenced.

#### 3.3 Comment Summary

One commenter wanted clarification that an increase from “trace coverage” (any 3 foot by 3 foot sample plot with less than 10% coverage of coal) to “moderate measurable increase” (any 3 foot by 3 foot sample plot with coal covering greater than trace but less than continuous, which is defined as 100% coal coverage) triggers adaptive management under Permit Part 1.4.3.3. The commenter also requested clarification that the four-inch depth threshold does not apply to the permit trigger for moderate measurable increase, but only for the permit limit for 100% continuous coverage.

**Response:**

The commenter is correct the four-inch thickness requirement only applies to the 100% continuous coverage, which is the permit limitation requiring that remediation planning begin. The “trace coverage” and “moderate measurable increase” phrases are not related to the four inches thick standard. By permit definition, a “moderate measurable increase” report from the permittee triggers the permittee to begin implementation of the adaptive management provisions contained in the permit. DEC added clarifying language to the definition of “continuous coverage”.

#### 3.4 Comment Summary

One commenter suggested DEC review the language in Permit Part 1.2.1.3 to clarify the level (i.e., trace, moderate measurable, or significant measurable) of deposits that would constitute a violation of the ZOD permit limit of 1.0-acre of aggregate area of continuous (i.e., 100%

coverage as measured in 3 foot by 3 foot sample plot) coal coverage exceeding four inches deep. The commenter also suggested DEC monitor in units of square yards instead of acres.

**Response:**

DEC revised Permit Part 1.2.1.3 to more clearly state the level of deposits that would result in a violation of the ZOD permit limitation and what level would trigger the adaptive management plan provisions contained in the permit. DEC retained the unit of measure as acres to be consistent with other APDES permits.

### **3.5 Comment Summary**

One commenter said DEC must assess whether remediation is beneficial, that coal has been spilling into Resurrection Bay for years and that DEC should determine whether there is an environmental benefit to remediating the site and removing the coal historically spilled.

**Response:**

The dive survey conducted as part of the permit application found only trace amounts of coal deposited under the south end of BC-14 and ship loader, which constitute the point sources associated with the incidental discharge of coal authorized by the permit. In addition, the dive survey identified the presence of marine life typical of areas with vessel traffic and acceptable dissolved oxygen levels. The coal's toxicity was also analyzed and found to be non-toxic. Further, as documented in Fact Sheet Part 5.3, Number 3 literature reviewed and cited on the effects of coal in the marine environment suggest that while coal may pose a physical hazard when present in sufficient quantities, it is not expected to pose a chemical hazard. As such, these site-specific and generalized findings have led DEC to conclude that the existing uses of the water body are currently being maintained, and will be maintained and protected as long as permit conditions are met. In addition, evaluating whether remediation is beneficial is not an APDES permit development legal requirement. No changes were made to the documents based on this comment.

### **3.6 Comment Summary**

One commenter indicated they need to know more about how particulates (of coal) travel and their potential effects in the marine environment. The commenter wanted monitoring to incorporate studies to determine the bio-effects and dispersal of finer grain size coal, in addition to seabed percent cover.

**Response:**

Similar to DEC's response for 3.5 above, especially as it relates to the coal's potential toxicity, there is not a documented basis of concern based on the existing information that would warrant DEC to require additional studies be conducted at this time.

### 3.7 Comment Summary

One commenter requested the change in the third line of Permit Part 1.1.1 to change the “or” to an “and.”

**Response:**

DEC made the requested change.

### 3.8 Comment Summary

A commenter indicated that the use of the phases “discharge of incidental coal” and “incidental spillage” in Permit Part 1.2.1 need to be standardized.

**Response:**

DEC standardized the use of the phrase “discharge of incidental coal.”

### 3.9 Comment Summary

One commenter indicated the Revised Draft Permit fails to assess and quantify current and anticipated coal spillage. The commenter indicates DEC has made no effort to determine how much coal is spilled from the shiploader, the amount of carryback coal that falls from BC-14, or from the areas that did not have catchment plates installed in 2015.

**Response:**

Any estimation of historical coal discharged would be plagued with a number of potentially unfounded assumptions rendering the estimation a gross approximation. Therefore, DEC finds it appropriate to use the permit cycle to gather actual, methodically collected and reported information on coal spillage. DEC closely evaluated the public comments submitted on the Draft Permit and added Permit Part 1.3.2 to require the permittee to develop a consistent methodology for estimating coal spillage. If the amount spilled varies by more than ten percent from an established baseline, then the permittee must carry out actions described in Permit Part 2.3 on Adaptive Management. Permit Part 2.3.4 specifically addresses improving monitoring of spillage of coal through an adaptive management plan. DEC also modified Permit Part 1.3.2.2 to ensure DEC access to the coal spillage methodology and its results.

### 3.10 Comment Summary

Two commenters indicated concerns with sediment deposition covering coal once it has settled on the seafloor. One commenter voiced concern that no discussion was included in the permit or fact sheet on how much sediment is transferred with each tidal cycle. The other commenter voiced concern that the first year seafloor monitoring required by the permit might be well after ship loading occurred and that sediment might cover coal before the seafloor coal monitoring survey occurred.

**Response:**

In order to timely assess coal coverage conditions on the seafloor promptly after loading, DEC modified Permit Part 1.4.3.1 to require the first seafloor monitoring survey to begin no more than

two weeks after the first ship loading post the effective date of the permit. As such, sediment coverage of any incidental coal discharged from the recent ship loading should be minimal prior to conducting the seafloor coal monitoring survey.

### 3.11 Comment Summary

One commenter indicated that DEC should clarify that all coal observations must be documented (see Permit Parts 1.4.4.7 and 1.4.4.9).

**Response:**

DEC added a reference to Permit Part 1.4.4.9 in Part 1.4.4.7.

### 3.12 Comment Summary

One commenter indicated that the Revised Draft Permit contains no provisions for public comment on the selection of the Best Management Practices (BMP), nor does it provide EPA with an opportunity to comment on or object to the BMP Plan. The commenter also felt that Revised Draft Permit Part 2.2 further fails to provide adequate guidelines or criteria for the development of BMPs. The commenter also makes an unclear reference to a recent Ninth Circuit Court of Appeals (Ninth Circuit) decision and a “meaningful review” standard.

**Response:**

The National Pollutant Discharge Elimination System (NPDES) Program is based on the premise of permittee self-monitoring and reporting based on specific performance objectives described in the permit (See Clean Water Act Section 308). As such, NPDES permits often are crafted with stated performance objectives that must be met by the permittee. The permit generally provides the permittee with some flexibility to formulate a site-specific plan consisting of pollution control measures to meet the stated performance objectives while still providing instructive guidance on minimum, permit mandated requirements. For this permitting action, Permit Parts 2.2.4.1.1 to 2.2.4.1.15 describe specific elements to be included in the BMP Plan. Permit Parts 2.2.4.2.1 to 2.2.4.2.3 describe specific BMPs to be included in the BMP Plan. DEC also inserted a new Permit Part 2.2.4.2.2 to address specific locations in the coal loading process and require that they be addressed in the BMP Plan.

With respect to the Ninth Circuit decision, upon review of the decision, DEC determined the decision was specific to municipal storm sewer system NPDES permits and implications with the regulatory phrase associated with compliance with water quality standards “to the maximum extent practicable”. As such, DEC fails to see how the out-of-context reference to the referenced Ninth Circuit’s decision is applicable for this permitting action, which requires compliance with water quality standards.

### 3.13 Comment Summary

One commenter indicated the BMPs fail to address the primary sources of incidental coal discharge. The Revised Draft Permit fails to include available controls or other measures to minimize coal falling from the south end of BC-14 and shiploader.

**Response:**

See comment response 3.14 below. DEC added a new Permit Part 2.2.4.2.2 to specifically address the south end of BC-14, the transfer feeder conveyor, the shiploader swing arm and the shiploader chute.

**3.14 Comment Summary**

One commenter indicated that the coal discharge threshold of 1.0-acre and four inches deep is too high to require remediation or trigger practices to minimize discharge.

**Response:**

DEC evaluated a substantially similar comment received during the first public comment period and responded by adding a section entitled Adaptive Management Plan (Revised Draft Permit Part 2.3). Adaptive Management is a structured, iterative process of robust decision making in the face of uncertainty, with an aim to reducing uncertainty over time via system monitoring. Permit Part 2.3 provides two approaches to proactive decision making. The first approach deals with coal spillage reporting and identifying any BMPs that need repair or replacement or facility improvements to ensure there is not a measureable increase of the amount of incidental coal discharged. The second approach deals with seafloor coal monitoring to identify locations of spillage and identify any BMPs that need repair or replacement, or facility improvements that should be made prior to reaching the permit limitation of 1.0-acre of aggregate area of continuous coal coverage at four inches deep. If permit conditions are followed, DEC maintains the Adaptive Management Plan will require actions by the permittee to reduce coal spillage prior to reaching the 1.0-acre and four inches deep permit limitation.

**3.15 Comment Summary**

One commenter suggested deleting the phrase, “unless additional time is granted by DEC” in Part 2.4.1.

**Response:**

DEC elected to retain the language as proposed in the Revised Draft Permit.

**3.16 Comment Summary**

One commenter indicated DEC had not included the results of a robust analysis of the “Incidental Discharge and Containment Improvement Review” conducted by HDR as part of the permit application.

**Response:**

Based on further review of the “Improvement Review” conducted by HDR, DEC added a new Permit Part 2.5 to require the Facility to conduct a detailed study on the replacement of the existing shiploader spout with a new “Cleveland Cascade” shiploader spout or similar pollution control technology. The new requirement is described in Fact Sheet Part 8.5.

## **4 Comments on Fact Sheet**

### **4.1 Comment Summary**

One commenter indicated that Fact Sheet Part 3.1 should explain that the previous NPDES/APDES permits for the Facility were for the discharge of industrial storm water and that the proposed permit is for the discharge of incidental coal.

**Response:**

DEC maintains the wording in Fact Sheet Part 3.1 is sufficient.

### **4.2 Comment Summary**

Two commenters requested revision or deletion of Fact Sheet Part 3.2 because there are allegedly inaccurate statements and much of the discussion appears to be irrelevant to the discharge being authorized by the proposed permit.

**Response:**

DEC elected to delete Fact Sheet Part 3.2 as the discussion does not provide a technical or legal basis for permit terms.

### **4.3 Comment Summary**

One commenter wanted to add, “outside the ZOD” to the end of the sentence in Fact Sheet Part 4.3.4.

**Response:**

DEC made the requested change.

### **4.4 Comment Summary**

One commenter indicated that Fact Sheet Part 4.4.5 does not contain an explanation concerning the rationale for defining continuous coverage as 100 % coverage and discontinuous as 99% or less.

**Response:**

DEC added language to the Fact Sheet Part 4.4.5 that the rationale for selecting the 100% is the ease of estimating 100% coverage as compared to 95% coverage or 75% coverage. DEC will use the data collected during the permit cycle to determine if a more appropriate division of percent coal coverage is appropriate to ensure protection of water quality.

### **4.5 Comment Summary**

One commenter indicated that the Fact Sheet Part 5.3 Number 1 discussion of the BMP Plan fails to point out the BMP Plan in the revised draft permit does not include measures to capture coal spillage from the end of the BC-14 conveyor and the shiploader.

**Response:**

See comment responses 3.14 and 3.16. DEC made changes to the Proposed Final Permit Part 2.2.4.2.2 to include provisions addressing the south end of BC-14 and the shiploader. A description of this addition has been added to the Fact Sheet Part 7.0 Number 4. A description of the adaptive management plan has also been added to the Fact Sheet Part 5.3 Number 1.

**4.6 Comment Summary**

One commenter, referring to the August version of the Fact Sheet, inquired about the phrase “trace amounts of other pollutants” that was stated in Fact Sheet Part 5.3 Number 3.

**Response:**

The referenced phrase was removed from the November version of the Fact Sheet. No changes were made to either the permit or the fact sheet.

**4.7 Comment Summary**

One commenter inquired why in Fact Sheet Part 5.3 Number 3 DEC allegedly failed to adequately explain why whole effluent toxicity (“WET”) testing was replaced with the United Nations Globally Harmonized System (“UN GHS”) prescribed method.

**Response:**

In the form and location of the coal as it enters the water, it is a bulk material. The UNGHS method is designed for categorizing the aquatic toxicity of bulk materials. Whereas WET testing is generally designed for liquid effluents. No change was made to the permit documents based on this comment.

**4.8 Comment Summary**

One commenter alleged DEC’s antidegradation analysis is inadequate and contains unsupported conclusions, specifically, the lowering of water quality is necessary to accommodate important economic development. The commenter maintains Fact Sheet Part 7.0 Number 1 must provide a more accurate analysis of actual employment at the facility. The commenter further indicates that DEC makes no mention of tourism in the area and no effort to ascertain how the tourism economy is negatively impacted by Aurora Energy Services water pollution.

**Response:**

DEC revised the Fact Sheet with a discussion of the downturn in the overseas coal market and the reduction in Facility’s staff to three people. However, DEC maintains that the employment numbers used, including the upstream benefits seen by employees who mine and transport the coal, are appropriate for use as the coal would not be present for shipping from the Seward Port without the extraction and transport of the coal from its source. While the discharge occurs in Seward, economic development is felt more broadly given the infrastructure associated with the project. In addition, the first finding of DEC’s Antidegradation Policy found in 18 AAC 70.015(a)(2)(A) does not mandate completion of a socioeconomic or cost benefits analysis as the commenter alleges. DEC maintains it sufficiently and accurately evaluated

whether allowing lower water quality is necessary to accommodate important economic or social development.

#### **4.9 Comment Summary**

One commenter alleges the Revised Draft Permit fails to include measures to control pollution from the primary sources. The commenter further indicated that the Revised Draft Fact Sheet does not describe any BMPs for the south end of the conveyor or any of the shiploader to capture coal spillage.

##### **Response:**

See comment responses 3.14 and 3.16. DEC added a description to the Fact Sheet Part 7.0 Number 4 to describe the additions to Proposed Final Permit Part 2.2.4.2.2 that describe the areas of concern identified by the commenter (i.e., the south end of BC-14 and the shiploader). DEC also added a reference to the adaptive management plan to this section of the antidegradation analysis in the Fact Sheet Part 7.0 Number 4.

#### **4.10 Comment Summary**

One commenter indicated that the antidegradation analysis should include all of Resurrection Bay, not just the area of the facility.

##### **Response:**

DEC maintains the antidegradation analysis in the Fact Sheet complies with DEC's Antidegradation Policy and July 14, 2010 *Interim Antidegradation Implementation Methods*. Further, an entire waterbody analysis does not follow the logic that water quality standards must be met in the waterbody outside the project area ZOD assigned to the facility (i.e., all water body uses must be maintained outside the authorized water quality ZOD variance).

## **5 Comments Received During the Five-Day Applicant Review Period**

### **5.1 Comment Summary**

One commenter indicated DEC should review the use of the term "limit" as it applies to the 1.0-acre four-inch deep deposition requirement. The commenter felt that this creates a new legal limit for depositions contained wholly within the ZOD.

##### **Response:**

Permit Part 2.4.5 states, "(a)n approved Remediation Plan constitutes an enforceable condition of the permit." Language was added to Permit Part 1.4.1 to clarify that the 1.0-acre area of continuous coal coverage four inches deep permit limitation is directly tied to initiating and implementing remediation planning. Language to this effect was already included in Fact Sheet Part 4.1; however, language was added to this section to further clarify the connection between the permit limitation and remediation

planning. The permittee would be out of compliance with the subject permit limitation if they fail to submit a timely submittal and implementation of an approved remediation plan.