

Approval of FY24 Contract with Taku Engineering for Engineering Support 3-2

Consent Agenda Briefing for PWSRCAC Board of Directors – January 2024

ACTION ITEM

Sponsor: Sadie Blancaflor and the TOEM Committee
Project number and name or topic: 5000 - Terminal Operations and Environmental Monitoring Program

1. **Description of agenda item:** The Board is being asked to approve a contract increase with Taku Engineering in the amount of \$21,720 for a not to exceed total contract amount of \$46,720. Work under this program includes tank maintenance review, as well as follow-up work related to the tank vent damage upset from February and March 2022. This contract increase is for Taku to (1) provide engineering support for an assessment of the oxygen content of the head spaces of the Valdez Marine Terminal (VMT) crude oil storage tanks during the tank vent damage incident that occurred in 2022, (2) review and prepare their oxygen concentration calculations such that they can be shared with Alyeska in response to Alyeska's request, and (3) meet with Alyeska to review system operating parameters and assumptions made for the calculations. The additional funds being requested for this work are solely to respond to Alyeska's request for additional information.

2. **Why is this item important to PWSRCAC:** This scope of work will enable a response to Alyeska's October 25, 2023 letter requesting additional information related to Taku Engineering's July 2023 report, "Crude Oil Storage Tank Vent Snow Damage" (Alyeska letter as Attachment A). PWSRCAC transmitted a response letter to Alyeska on November 3, 2023 (Attachment B), offering a meeting with Taku Engineering to discuss their calculations within the report. This funding would support that meeting, including the preparatory work to be conducted before it occurs.

3. **Previous actions taken by the Board on this item:**

Meeting	Date	Action
XCOM	9/14/23	Accepted the technical memorandum titled, "Crude Oil Storage Tank Vent Snow Damage," by Taku Engineering, dated July 2023, with direction for staff to forward the memo to Alyeska and state and federal regulators accompanied by a cover letter summarizing findings and recommendations with requests for appropriate action and a complete response.
Board	11/21/2023	Authorized a \$14,000 budget modification for travel and engineering support.

4. **Summary of policy, issues, support, or opposition:** On September 20, 2022, PWSRCAC staff and contractor Bill Mott of Taku met with Alyeska representatives to discuss the tank vent damage oxygen excursion and Taku's associated analysis. Data and information was requested from Alyeska related to the oxygen excursion that was intended to better understand how the system had been operating during the incident, and to determine if refinements in the assumptions used in Taku's model were warranted. This information was not provided by Alyeska, but some of the information was received through a public records request to the Alaska Occupational Safety and Health (AKOSH) who received the documents from Alyeska. On October 12, 2023, PWSRCAC transmitted Taku Engineering's "Crude Oil Storage Tank Vent Snow Damage" report (dated July 2023) to Alyeska, which outlined several concerns regarding the lower explosive limit of tank headspaces when several vents were

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sheared off last winter. Prior to being accepted as final at the September 14, 2023 Executive Committee meeting, the report was shared with Alyeska for their review with the opportunity to provide feedback. No feedback was provided at that time.

The Council received a response from Alyeska on October 25, 2023, requesting additional information on Taku Engineering's mass balance calculations and reasoning behind the lack of gaseous mixing in the headspace.

The Council prepared and transmitted a letter in response on November 3, 2023, offering a meeting with Taku Engineering to present their calculations, and reiterating the Council's ongoing requests for additional information to both compare Taku's results with those of Alyeska's engineers' and further refine the model. In the letter, PWSRCAC explained that providing the model, calculations, and references used by Taku to support their findings and discussions in the report was not part of the original scope of work, and that PWSRCAC is not in possession of the information being requested. The requested action to increase the contract with Taku is necessary in order for Taku to review and prepare the oxygen concentration calculations such that they can be shared with Alyeska.

5. **Committee Recommendation:** The Terminal Operations and Environmental Monitoring Committee reviewed this work, and recommends the Board approve the contract increase to allow Taku Engineering to (1) provide engineering support for an assessment of the oxygen content of the head spaces of the VMT crude tanks during the tank vent damage incident that occurred in February and March of 2022, (2) review and prepare their oxygen concentration calculations such that they can be provided to Alyeska, and (3) meet with Alyeska to review system operating parameters and assumptions made for the calculations, in an amount not to exceed \$21,720.

6. **Relationship to LRP and Budget:** Program 5000 – Terminal Operations is in the approved FY2024 budget and annual plan.

5000 – Terminal Operations Program

As of December 19, 2023

Original Budget	\$13,640
Revised Budget	\$27,640
Actual & Commitments	\$11,730
Amount Remaining	\$15,909

7. **Action Requested of the Board of Directors:** Authorize a contract increase with Taku Engineering in the amount of \$21,720, for a new not to exceed total of \$46,720, to provide engineering support related to Alyeska's request for information on the oxygen content of the head spaces of the VMT crude oil storage tanks.

Note: This action is contingent upon Board approval of the budget modification for 5000 - Terminal Operations Program, as included under item 4-2, for this work.

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8. **Alternatives:** Alternatively, the Board can choose to not fund this contract increase and associated scope of work.

9. **Attachments:**

A) October 25, 2023 letter from Alyeska to PWSRCAC requesting additional information regarding the PWSRCAC Transmittal of "Crude Oil Storage Tank Vent Snow Damage" Report.

B) November 3, 2023 letter from PWSRCAC to Alyeska responding to their request for information regarding the "Crude Oil Storage Tank Vent Snow Damage Report".

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ANCHORAGE, ALASKA 99519-6660

TELEPHONE (907) 787-8700

October 25, 2023

Letter No. 53119

File 7.14.02

Donna Schantz
Executive Director
Prince William Sound Regional Citizens' Advisory Council
130 S. Meals, Ste. 202
Valdez, AK 99686

Subject: Request for additional information regarding the PWSRCAC Transmittal of Crude Oil Storage Tank Vent Snow Damage Report

Dear Ms. Schantz,

We have received the Prince William Sound Regional Citizens' Advisory Council report titled "Crude Oil Storage Tank Vent Snow Damage." We appreciate the opportunity to review the report and related recommendations. In order to review the findings, we request the following information:

- 1) For the mass balance performed for O2 in the vapor system:
 - Basis of calculations
 - Data input utilized
 - Calculation details
 - Any other assumptions utilized
 - LOC (lower oxygen concentration) for combustion utilized or assumed
- 2) Basis of assumption of the general stratification or lack of general mixing in the gaseous headspace

Thank you, in advance, for providing the information requested and for sharing our commitment to the safe and environmentally responsible operation of the Valdez Marine Terminal.

Please direct all written correspondence to:

Andres Morales
Emergency Preparedness & Response
Alyeska Pipeline Service Company
P.O. Box 196660, MS 575
Anchorage, AK 99519

If you have any questions regarding this submittal, please contact Andres Morales at (907) 787-8303.

Sincerely,

A handwritten signature in blue ink, appearing to read "Andres Morales", followed by a horizontal line.

Andres Morales
Emergency Preparedness and Response Director
Alyeska Pipeline Service Company

cc:
M. Day
A. Morales
M. Parsons
K. VanWingerden
T. Marchesani
L. Vorachek
A. Sweet



www.pwsrcac.org

Citizens promoting the environmentally safe operation of the Alyeska terminal and associated tankers.

Members:

Alaska State
Chamber of Commerce

Chugach Alaska
Corporation

City of Cordova

City of Homer

City of Kodiak

City of Seldovia

City of Seward

City of Valdez

City of Whittier

Community of Chenega

Community of Tatitlek

Cordova District
Fishermen United

Kenai Peninsula
Borough

Kodiak Island Borough

Kodiak Village Mayors
Association

Oil Spill Region
Environmental Coalition

Port Graham
Corporation

Prince William Sound
Aquaculture Corporation

Anchorage

3709 Spenard Rd, Ste 100
Anchorage, AK 99503
O: (907) 277-7222
(800) 478-7221

Valdez

P.O. Box 3089
130 S. Meals, Ste 202
Valdez, AK 99686
O: (907) 834-5000
(877) 478-7221

November 3, 2023

Mr. Andres Morales
Alyeska Pipeline Service Company
PO BOX 300
Valdez, Alaska 99686

SUBJECT: Alyeska Pipeline Service Company's Request for Additional Information
Regarding the PWSRCAC Transmittal of Crude Oil Storage Tank Vent Snow
Damage Report

Dear Mr. Morales,

This letter is in response to Alyeska Pipeline Service Company's (Alyeska) request dated October 25, 2023, for additional information related to Taku Engineering's (Taku) June 2023 report titled "Crude Oil Storage Tank Vent Snow Damage Report." The additional information requested relates to the mass balance performed for oxygen in the vapor system, and the basis of the report's assumption of the general stratification, or lack of general mixing, in the gaseous headspace.

As you may recall, staff from the Prince William Sound Regional Citizens' Advisory Council (PWSRCAC or Council) and contractor Bill Mott of Taku met with Alyeska representatives on September 20, 2022, to discuss the tank vent damage oxygen excursion and Taku's associated analysis. Alyeska attendees included yourself, Weston Branshaw, Joe Howell, Lindsey Vorachek, Jessica Hannan, Klint VanWingerden, and Mike Drew. At that meeting, PWSRCAC and Taku explained the rationale behind better understanding and defining the oxygen content in the tanks related to the March 2022 snow damage incident.

This meeting followed an initial information request to Alyeska dated April 19, 2022. In that communication, PWSRCAC requested data and information related to the oxygen excursion. The requested information was intended to better understand how the system had been operated during the incident, and to determine if refinements in the assumptions used in Taku's model are warranted. On August 22, 2022, PWSRCAC also requested information related to the Tank Vent Damage repair plan, procedures, and schedule. Additionally, on October 7, 2022, PWSRCAC requested information related to the tank vent damage timeline, management action plan, and investigation report.

Some of this information was received in a June 2022 public records request from Alaska Occupational Safety and Health (AKOSH), who received some of the associated documents from Alyeska. Subsequently, AKOSH shared these documents with PWSRCAC in July 2022. This transmitted information included the management action plan, the VMT East Tank Farm Work Orders, and the VMT Power Vapor Control Room Logs from February/March 2022. With these exceptions, all requests made to Alyeska for additional information on the tank vent damage incident remain outstanding.

PWSRCAC understands, based on previous discussions during our monthly communications meetings, that Alyeska is restricted from providing the bulk of the requested information based on internal Alyeska legal directive and requirements from regulatory agencies related to ongoing investigations they are conducting into the Valdez Marine Terminal East Tank Farm vent damage incident. However, the information requested to refine Taku's model and analysis is directly related to the questions and information requests included in your letter dated October 25, 2023. Due to the lack of information from Alyeska, Taku indicates in the report that the conclusions are drawn using the "limited data available to complete a mass balance" (page 6).

Providing the model, calculations, and references used by Taku to support their findings and discussions in the report was not part of the original scope of work for this effort, and therefore PWSRCAC is not currently in possession of the information being requested. PWSRCAC is in the process of expanding the original contract with Taku in order to accommodate Alyeska's information request. Taku has requested a meeting with Alyeska's technical team to explain the calculations before sharing this information. Due to scheduling conflicts, the earliest availability Taku has to meet with Alyeska to review this information is mid-December 2023.

PWSRCAC also notes that if the initial information requested had been provided, Taku would have been able to further refine the model initially discussed in September of 2022, and subsequently used to draw the conclusions in the report. PWSRCAC also requested Alyeska's investigation report on October 7, 2022, based on information received that this report has been completed. This report has not yet been shared with the Council to date. We would expect that an investigation would include an assessment to determine the actual tank headspace conditions during the upset. As such, PWSRCAC again requests access to Alyeska's investigation report to allow Taku to compare results and better refine their model.

Given that Alyeska has access to the full scope of information needed for a refined model of the oxygen content in the crude oil storage tank headspaces, PWSRCAC requests both access to all outstanding information requested related to the tank vent damage incident and Alyeska's report before providing Taku's model and calculations. Adjustments to the model, and the report recommendations and findings, would be made accordingly, if this information is provided and the data supports changes.

PWSRCAC thanks Alyeska for reviewing the report and associated recommendations and looks forward to continued dialogue regarding the information requests and calculations contained within the Crude Oil Storage Tank Vent Snow Damage Report. Please let us know how you would like to proceed, either scheduling a meeting mid-December, or providing the information needed so that the model and report can be refined appropriately.

Sincerely,



Donna Schantz
Executive Director

Cc: Arlene Lamont, OSHA
Cathy Munoz, ADOL
William "Dale" Williamson, ADOL
Krista Childers, ADOL
Krishna Viswanathan, EPA

Geoffrey Glass, EPA
Jason Olds, ADEC
Dylan Morrison, ADEC
Jim Plosay, ADEC
Mike Day, Alyeska
Martin Parsons, Alyeska
Klint VanWingerden, Alyeska
Thomas Marchesani, Alyeska
Lindsey Vorachek, Alyeska
Alyssa Sweet, Alyeska

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