

Briefing for PWSRCAC Board of Directors – September 2024

INFORMATION ITEM

Sponsor: Sadie Blancaflor and the Terminal Operations and Environmental Monitoring Committee

Project number and name or topic: 6512 - Maintaining the Secondary Containment Liner

1. **Description of agenda item:** This is an information item to provide the Board with an update on the West Tank Farm secondary containment liner pilot test using electrical leak location. PWSRCAC contractor Dr. Joe Scalia, Associate Professor of Civil and Environmental Engineering at Colorado State University who works with Dr. Craig Benson, will provide an update on the Electrical Leak Location (ELL) and Electrical Resistivity Tomography (ERT) pilot tests that Alyeska conducted in the decommissioned West Tank Farm July 22-30, 2024.

2. **Why is this item important to PWSRCAC:** Secondary containment systems are required by state and federal regulation to hold oil in the event of a spill from a tank or pipe until the spill can be detected and cleaned up. The Alyeska Pipeline Service Company's (Alyeska) Valdez Marine Terminal (VMT) utilizes 14 crude oil storage tanks located in their East Tank Farm to facilitate terminal operations. The VMT also has a West Tank Farm that is not currently in use and has four out-of-service crude oil storage tanks. All of the in-service and out-of-service crude oil tanks, as well as other storage tanks at the VMT, are within secondary containment systems.

One of the major components of the secondary containment systems at the VMT's East Tank Farm is a special subsurface liner, called a catalytically blown asphalt (CBA) liner. The CBA liner was installed around 1976, when the terminal was constructed. The CBA liner is located under about five feet of earthen fill throughout each of the seven secondary containment areas (also referred to as "dike cells") in the East Tank Farm. There are two crude oil storage tanks per dike cell. Holes or cracks through the East Tank Farm's CBA liner have consistently been found when it is exposed (about 19% of the time it is uncovered) indicating that the liner, and thereby the secondary containment system, may not hold spilled oil before it could be detected and cleaned up.

The area underlain by CBA liner is very large. The average containment area in each dike cell is about eight acres and the total containment area in the East Tank Farm is about 57 acres, the majority of which is underlain by CBA liner. CBA liner is installed underneath all the tanks as well as around the tank perimeters. Only a small percentage of the liner area has ever been uncovered and evaluated for damage.

For two decades PWSRCAC has voiced concern to Alyeska, and state and federal regulators, regarding the ability of the CBA liner to meet regulatory standards and the risks that a compromised liner poses in the event of a spill from the crude oil storage tanks at the VMT.

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The Council's years of concern recently culminated in a May 11, 2022, decision by the Alaska Department of Environmental Conservation (ADEC) requiring that Alyeska:

- Identify "preliminary" methods to evaluate the integrity of the CBA liner in the East Tank Farm by October 1, 2023
- Identify "final" proposed method by March 1, 2025

PWSRCAC contractor Dr. Joe Scalia, a subcontractor to Dr. Craig Benson, was tasked with observing the pilot test on July 22–30, 2024. The pilot test will be used to inform the final proposed method of testing for the East Tank Farm, which is due to ADEC on March 1, 2025.

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

<u>Meeting</u>	<u>Date</u>	<u>Action</u>
XCOM	4/28/22	Authorized the Executive Director to negotiate a FY2022 contract with Dr. Craig H. Benson for project 6512 - Secondary Containment Liner Work in an amount not-to-exceed \$50,000.
Board	1/26/23	Accepted the report titled "Methodologies for Evaluating Defects in the Catalytically Blown Asphalt Liner in the Secondary Containment System at the VMT" by Dr. Craig H. Benson dated November 29, 2022, with direction to staff to forward the report to Alyeska, and state and federal regulators; and authorized staff to negotiate a contract change order, for contract #6512.22.02, with Dr. Craig H. Benson, adding \$7,900 for compensation to attend meetings with the Council, Alyeska, and state/federal regulators promoting the findings and recommendations of his November 29, 2022 report and extending the term of the contract to June 30, 2023.
XCOM	7/18/24	Authorized an FY2025 contract with Dr. Craig Benson for deliverables associated with project 6512 Maintaining the Secondary Containment Liner, in an amount not to exceed \$38,000.

4. **Summary of policy, issues, support, or opposition:** For at least the past three VMT contingency plan (C-Plan) renewals (going back to the 2008 renewal), the Council has submitted comments to Alyeska and ADEC with recommendations pertaining to the CBA liner and secondary containment systems. The most recent 2019 C-Plan renewal was no different, except that the Council and Alyeska both filed "informal reviews" with ADEC regarding the secondary containment systems. The "informal reviews," which are a way of working out disagreements about the C-Plan without requesting an adjudicatory hearing, were resolved when ADEC issued the aforementioned May 11, 2022 decision requiring Alyeska to identify final CBA liner evaluation methods by March 2025.

5. **Committee Recommendation:** None.

6. **Relationship to LRP and Budget:** Project 6512 – Maintaining the Secondary Containment Systems at the Valdez Marine Terminal is in the approved FY2025 budget and annual work plan.

7. **Action Requested of the Board of Directors:** None, item is for information only.

8. **Attachments:** None.