April 2026

Environmental, Safety & Security Sequential Safety Meeting

MARATHON®

ANACORTES REFINERY

ESS Safety Metrics

DSA Eligible	OSHA rec	ORIR	AFPM 1a/1p	H2S >50 ppm	PSE 1/2	DEI 3/4
	1	0.52	0/0	0	0/0	1/0
🎯	-	*0.30*	3	≤ 3	≤ 3	≤ 0

•**ORIR**: OSHA Recordable Injury
•**Anacortes**
1 - Chipped Tooth

DEI: Notice of Violation for 25 TAR Deviations – Tier 3

- This was previously a Tier 2, but was upgraded to a Teir 3 based on penalty amount

•**AFPM 1a: Actual Incident** - serious injury that caused a fatality, hospitalization, or other life-altering event.
•**AFPM 1p: Potential Incident -** an incident with the potential for fatality, hospitalization, or other life-altering event, including near misses.
•**Anacortes**
•**PSE**: Process Safety Event, refer to R-12-007
•**DEI:** Designated Environmental Incident, refer to R-13-027

Start Safe and Stay Safe: Confined Space & SWP Findings

Gas Testing & Documentation Requirements

Audit Findings

- 10 of 13 audited permits indicated missing mid-shift gas detection readings for jobs that continued beyond 5 hours.
- Calibration date for gas testing equipment was not documented per the RSP.

Why This Matters

- Gas levels can change over time, especially during extended work.
- Ensuring proper calibration confirms the monitor is accurate and reliable

Required Actions

- For jobs exceeding 5 hours, perform and document mid-shift atmospheric readings.
- Verify gas monitors are within valid calibration period and are functional. Record calibration date and bump test date on permits.
- Ensure readings are
  - Recorded at required intervals
  - Clearly documented before permit closeout

**Results are from our most recent collaborative audit, however we are continuing to see these trends currently as well.*

Start Safe and Stay Safe: Confined Space & SWP Findings

Communication & Closeout Compliance

Audit Findings

- Several audited permits were missing Owning Department Channel in Section 1.
- 12 of 13 closed CSE permits reviewed were missing CSE debriefing information.

Why This Matters

- Delays emergency response if correct contact info is missing
- Debriefs capture lessons learned and hazards encountered

Required Actions

- In section 1 of permit, include both Owning Department and Servicing Group contact.
- Complete CSE debrief section for every CSE permit.
  - Document issues, hazards, or deviations
  - Confirm work conditions at completion.

**Results are from our most recent collaborative audit, however we are continuing to see these trends currently as well.*

Start Safe and Stay Safe: Confined Space & SWP Findings

Confined Space Permit Accuracy

Audit Findings

- One permit was used for multiple confined spaces (entry into two separate manholes)

Why This Matters

- Each confined space has unique hazards and atmospheric conditions. Separate permits ensure each space's conditions are properly covered.

Required Actions

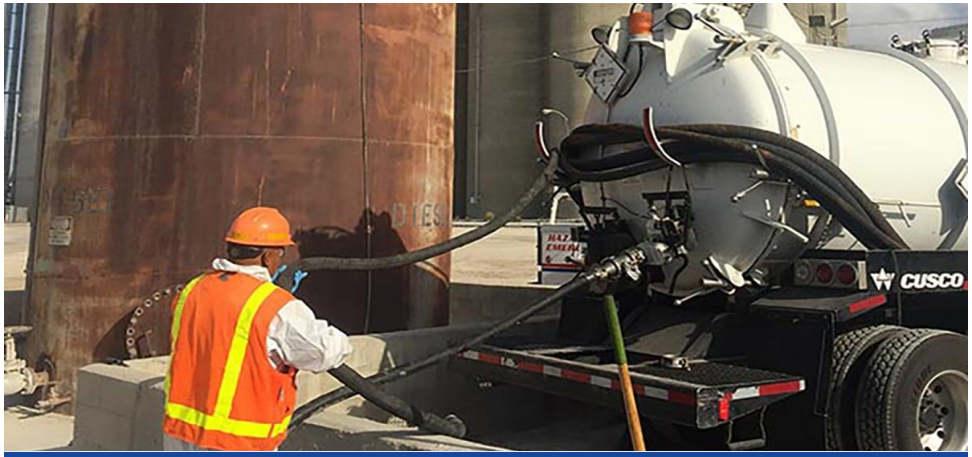
- Each confined space must have its own permit.

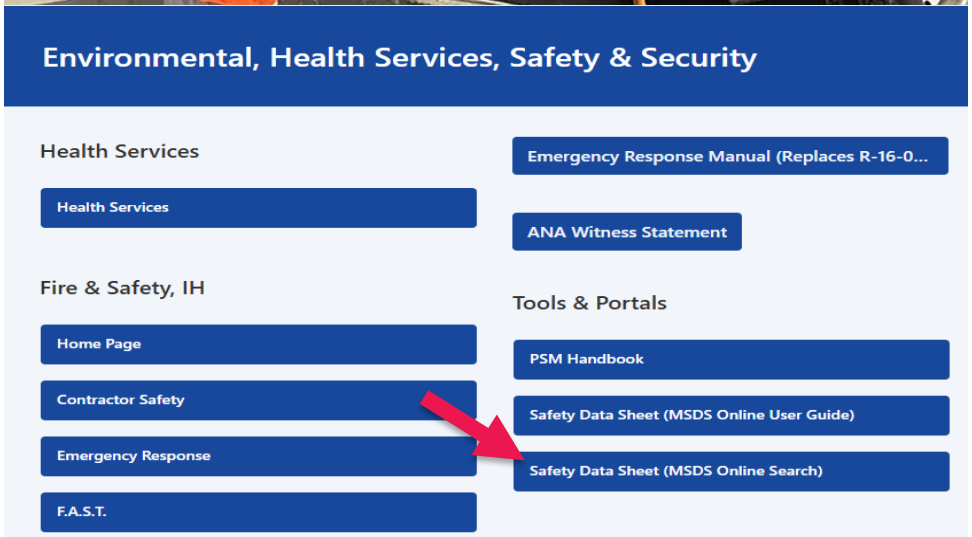
**Results are from our most recent collaborative audit, however we are continuing to see these trends currently as well.*

Vac-trucks and Safety Data Sheets

- When using a Vac-truck it is required that the owning department provide the relevant SDS sheets for the product that is being cleaned up or transported.

- SDS forms can be found on Sharepoint on the EHSS page here.





Environmental - 2026 DEIs

- January - Flare sulfur CEMS downtime – Tier 1
- February – OELs found at wharf – Tier 1
- February – Notice of Violation for 25 TAR Deviations – Tier 3
  - This was previously a Tier 2, but was upgraded to a Teir 3 based on penalty amount
- March – Opacity on F-752 Riley boiler – Tier 1
- March – Fuel gas H2S exceedance – Tier 1

Environmental Announcement!

The environmental department now has a Duty Phone! Call us at anytime to get top-notch environmental support:

360-739-0940

Reminder to call us for spills, releases to the environment, flaring events, wastewater treatment upsets, or any urgent questions you might have. We love to help!

Anacortes 2025 Process Safety Culture

THANK YOU!
Anacortes 2025 Process Safety Culture

The Anacortes Process Safety Council extends a sincere thanks to all for your participation in our 2025 Process Safety Culture Survey!

- Our last Survey was in 2022.
- The purpose of the survey is to use the results to help us better understand our process safety culture and identify actions for improving our process safety programs/culture
- We had 635 respondents that included 274 Business Partners and 361 Employees-Great Participation!
- There are 1400 free-text comments collected from the survey
- Final Survey report can be accessed via sharepoint.

- Anacortes Process Safety Council

Cameron Hunt, Jeremiah Harju, Kyle Cassidy, Marc Ranieri, Bret Fritch, Rachael Pletenik, John Carlson, Aaron Eastwood, Archie Jorgensen, Ian Sewell Trevor Smith, Clay Hathaway, Trent Kies, Diane Rusher

2025 Process Safety Culture Survey
What are the Site Actions?

The site Process Safety Council completed a review of all survey results and developed recommendations. These recommendations were reviewed by our Refinery Leadership Team and have been put into Intelex for tracking.

In accordance with WAC 296-67-375(6), corrective actions must be complete within 24-months of completion of the written report.

The 8 recommendations are :

1)Site Leadership (Directors) to complete a review of the survey data related to their departments to identify any areas for improvement or areas that are done well and should be maintained. Discuss/review observations with respective departments.

Who: All Directors; Date: 12/15/2026

2)PS Council to develop and support a site wide communication strategy for 2025 Process Safety Culture Survey; report, site actions; to include frequency and communication venue(s)

Who: Diane Rusher; Date: 4/1/2026(completed)

3)Have consistent and routine field walks by Site Leadership (Directors)

Who: Cameron Hunt (champion) and designee; Date: 4/01/2026

4)Develop a roadmap to address the key issues and communicate via Employee Experience Refining Vision efforts. Roadmap may consider a first step is reviewing roles and responsibilities and workload. Are there work tasks/activities that are not necessary; is more training needed; is there technology that can help.

Who: Cameron Hunt; Date: 12/15/2026

2025 Process Safety Culture Survey
What are the Site Actions?

5)Finalize and Roll out MOC Hazard Evaluation Team Guide for Hourly Participants .

Who: Diane Rusher; Date: 6/01/2026

6)Develop periodic(evergreen) site communications/ forum(s) covering the following:

- ANA Capital /ER/TAR/RM project list (include status, schedule and progress. Highlight both approved projects as well as potential projects)
- TAR -Work scope collection process (how scope is collected; who is responsible; when scope is completed; ITAR access/training)
- Mechanical Integrity

NOTE: Perhaps tie to the MPC Refining Vision Program

Who: Kernan McHugh; Date: 6/01/2026

7). Integrate Lab Chemists into Area Teams(SPP as a model)

Who: Chris Lewe; Date: 9/30/2026

8)Evaluate the legacy All-Hands Contractor Projects/Maintenance Meeting and determine a forum for shared learnings and increased communication with Business Partners

- ✓ Define structure/agenda/frequency
- ✓ Initiate 2nd Half of 2026

  - From the last survey in 2022 there was consistent desire from our business partners to reinstate the monthly All Hands Project/Maintenance meeting. This was also a common theme throughout the 2025 survey in the comments and focus group. It was recognized as a forum for shared learnings and increased communication.
  - A forum to address the “Safety Valued over cost” and “Safety Values over timelines”
  - A forum to address recognition
  - Opportunity to get feedback and suggestions from the experienced individuals who are doing the work

Who: Steve Schram ;Date: 9/01/2026

2025 Process Safety Culture Survey
Future Communication

- PS Council Meet and Greet at Clock Alley and Contractor gates-2Q2026

  Flyer with information related to 2022/2025 Survey recs and status

- Annual Site Process Safety Review(ASPSR-) 4Q2026

  Video featuring Culture Survey actions and part of Monthly Safety Sequential materials

- Monthly Safety Meeting Materials

  Updates will be included each quarter going forward in 2026.

- Updates will be included in Town Halls, starting Town Hall in 2nd Qtr. 2026

Debutanizer Feed Line Pinhole Leak: Abrasive Blasting on Live Equipment
B-Zone – Gas Recovery
Cat 2 Investigation: Incident #507866
12/31/2025
Investigation Team:
Derrick Youngquist; Steven Pugh; Edgar Corado; Steve Schram(Sponsor)

Event Summary

On December 31, 2025, a pinhole hydrocarbon leak was identified on the Debut Feed piping circuit while business partners were performing planned Corrosion Under Insulation (CUI) mitigation work. The work was being executed under SAP Work Order #11012522 following prior inspection findings that identified the circuit as experiencing damage from CUI.

During abrasive blasting activities, the removal of corrosion scale exposed a through-wall defect adjacent to a pipe support shoe. The business partner immediately stopped work and notified Operations. Operations confirmed the leak and initiated a localized evacuation, which was subsequently escalated to a plant-wide alarm and Emergency Response Team (ERT) activation as a precautionary measure.

There was one first aid. Strong cross-functional execution prevented a higher-consequence event.

Total estimated hydrocarbon release was 2,377 pounds of untreated propane, butane, and gasoline-range materials; this did not surpass Tier 2 PSE thresholds.

Permanent replacement of the damaged piping section was completed on January 21, 2026. The unit returned to normal operating conditions without restriction.

Site leadership agreed that a Category 2 investigation should be conducted to understand the root cause and prevent future occurrences.

Causal Factors and Lessons Learned

- Abrasive Blasting During Scale Removal Exposed a Through-Wall Defect Resulting in LOPC(Loss of Primary Containment)
- Location of Failure Prone to Accelerated CUI(Corrosion Under Insulation) Attack
- Inspection Hold Process Did Not Identify Pipe Wall Thickness Was Inadequate for Surface Preparation or Abrasive Blasting on Live Equipment

✓ Corrosion under insulation is progressive and often undetectable until advanced wall loss exists. Inspection programs alone cannot guarantee the prevention of loss of primary containment.

✓ Pipe support shoes under mineral wool insulation represent an elevated risk and may require enhanced mitigation strategies.

✓ Surface preparation on live equipment functions as a final barrier against loss of containment and must be managed as a higher-risk activity.

✓ Rapid cross-functional response significantly reduces consequence severity

What We Found

CUI scale can mask localized wall thinning

CUI damage on the nearby shoe was found to have greater than anticipated wall loss after blasting and primer coating.

Recommendations and OFIs

- **Rec 1:** Develop a procedure to outline requirements for surface preparation on in-service piping and equipment.

Blake Ostler:3/31/2027

NOTE: Interim Authorization for Abrasive Blasting Surface Prep Form to be used until this action item is complete. Form and Notification has been sent to all Employees and Business Partners via POI

- **Rec 2:** Develop a strategy to conduct evaluations for CUI susceptible piping to determine the necessity for existing insulation systems.

Elijah Clay: 3/31/2027

OFI 1:

- Develop a structured curriculum and supporting lesson plan tailored to Operations personnel to standardize and improve the execution of insulation audits. Digitize the audit form into GoPlant with picture capture.
- Adam Avery: 8/31/2026

OFI 2: Deliver the training to Operations through focused, instructor-led sessions utilizing the developed lesson plan to standardize expectations, strengthen audit quality, and ensure consistent execution of future insulation audits. Adam Avery 8/31/2026

PSE1 MPC PROCESS SAFETY ADVISORY
GALVESTON BAY & GARYVILLE ROOF DRAINAGE FAILURES

PSA 26-03

Published 3/16/2026

(**GVL**) On January 25, 2024, Operations identified product on top of the roof of Slop Tank 500-5.

- This incident was categorized as a PSE1 due to a total release of 819 barrels of crude oil with a leak rate of 32 bbls/hr.

Causal Factors:

- Inadequate rainwater roof drainage on Tank 500-5 resulted in a severely deflected external floating roof near a bleeder vent, allowing crude oil from the tank to pass through the bleeder valve to the roof.

(**GBR**) On July 27, 2024, Operations identified product on top of the roof of Naphtha Tank Tk-106 and flowing from a roof drain valve.

- This incident was categorized as a PSE1 due to a release of 14,186 barrels of Naphtha onto the tank roof and 182 bbls to the tank dike with a leak rate of 2,255 bbls/hr.

Causal Factors:

- Roof drain was believed to be obstructed, preventing a significant amount of rainwater from draining from the roof.

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"THE REST OF THE STORY": **(GVL)** Two weeks prior to the incident, during a seal inspection, it was noted that a 6-inch check valve associated with the tank roof drain was stuck closed. The inspector popped the check valve open to drain the water from the roof. On 1/25/2024, GVL experienced over 6.9" of rainfall. The check valve was again stuck in the closed position causing rainwater to accumulate on the roof. The deflection of external floating roof plates, caused by the accumulated rainwater, submerged a bleeder vent and allowed crude oil to get on top of the tank. GVL replaced the check valve with a new one the week following the January incident. In addition to the roof drain being compromised, a new tank roof was constructed in 2021 with an extra bleeder vent near the end of stairs that was shorter than the rest of the bleeder vents. On 4/10/2024, an even more significant rainfall occurred where rainwater again submerged this bleeder vent even though the roof drain worked properly. This April rainfall event was extraordinary with 2" in thirty minutes, more than 3" in one hour and more than 8" in six hours. Following this incident, GVL performed an MOC to cap/blind the bleeder vent.

(GBR) GBR experienced over 10" of rainfall in the week preceding the incident, and ~3.5" the day of the incident. The Tk-106 roof failure likely occurred at 10:18 a.m., when PI trends indicated an increase and decrease in level readings. At 2 p.m., Operations began dewatering a Raffinate tank to Tk-106. While completing the flow balance sheet for the dewatering activity, an Operator observed abnormal flow readings. Upon returning to Tk-106, the Operator observed that the roof had submerged, and product was flowing through the roof drain. Operations quickly mitigated the spill and contacted the GBR ERT for additional support. A thorough inspection of the tank identified no apparent mechanical failure of the structural elements of the tank. The investigation concluded that an obstruction in the roof drain system likely prevented effective draining of the roof, resulting in a seal failure.

- ☑ Operations
- ☑ Maintenance
- ☐ Technical
- ☑ Engineering

DISCUSSION TOPICS:

- Discuss the inspection activities that would identify a plugged tank roof drain.
- What actions would you ensure are taken if a roof drain was reported as not adequately working?
- Discuss the roof drain management process for your site and ensure proper position of roof drain valves is documented and well understood.
- When a tank roof is designed, what level of hazard analysis is performed for changes to the roof design such as location and height of the bleeder vents?
- When a tank roof is replaced, what systems would catch if a bleeder vent was constructed too short and/or not in the correct location?
- Before and after a significant rainfall, are there any activities that should occur to inspect roof drainage integrity to ensure roof drains are working adequately?

Global Action

Recommendations	Assigned to:	Due Date:
Review this advisory with your leadership team and cascade to your entire organization to ensure site-wide review to improve process safety hazard recognition.	*Site VPs*	*5/31/2026*
For sites with external floating roof tanks, develop/ensure your site has a written policy or procedure that addresses the management of tank roof drain valves and includes the proper identification/mitigation/removal of water before/during/after heavy rain events.	*Operations/Product Control Directors*	*3/31/2027*
Update RRD-1148-000 Operator Rounds to include monthly round task details in accordance with API-653 and industry practices, including roof drain monitoring and valve exercising.	*Blake Luminais*	*9/30/2026*
Update SP-90-13 Aboveground Storage Tank Inspection Program to include standardized requirements for external floating roof inspection task details in accordance with API-653 and industry practices, including verification that roof drain sump and check valve are clear.	*Kenny Spriggs*	*9/30/2026*
Update site checklists to implement requirements per SP-90-13 for sites with external floating roof tanks.	*Maintenance Directors*	*3/31/2027*
Update SP-42-18 to include guidance on vacuum breaker installation locations. (Assigned as part of GVL Investigation Recommendation #341345)	*Kenny Spriggs*	*Complete*

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Bring It Up!!!

If there are Safety questions or concerns you wish to discuss, please bring them up!