September 2025

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	Permit deviations
✖	2	0.21	0/6	3	0/0	0/2	23
🎯	-	*0.30*	3	≤ 3	≤ 3	≤ 1	*34*

•**ORIR**: OSHA Recordable Injury

•**Anacortes**

•1 – Debris in eye needing prescription eye drops

•1- Sprained wrist requiring medical treatment.

•**PSE**: Process Safety Event, refer to R-12-007

•**DEI:** Designated Environmental Incident, refer to R-13-027

•**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**

•1p - Fall Protection Not Utilized

•1p - HVAC Electrical Spark

•1p – GFCI Electrical Shock

•1p – Grating/Handrail Removal Fall Hazard

•1p – Energy Isolation Verification

•1p- H2S alarm greater than 100ppm.

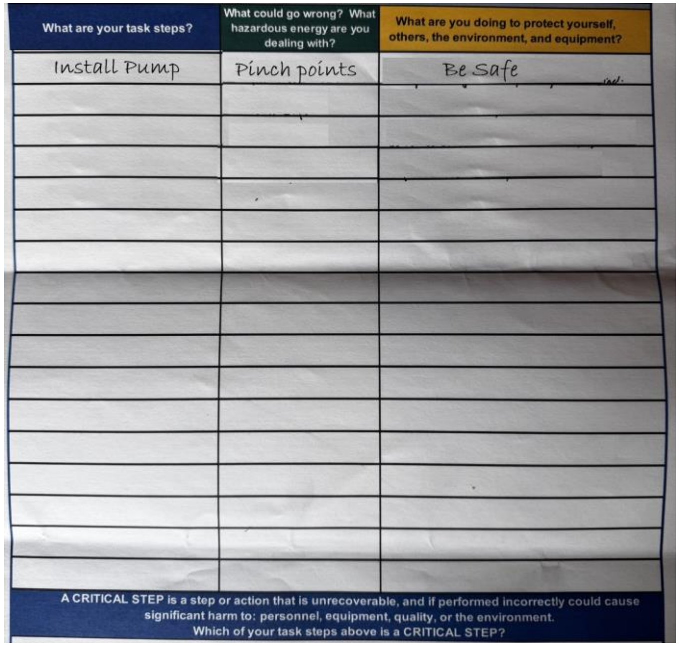
Start Safe and Stay Safe: Safety Highlights

This month's Start Safe Stay Safe highlights key trends and recurring issues identified through recent audits and observations by the safety team. Rather than focusing on a single topic, we will review patterns that impact our daily work across multiple areas.

The goal is to recognize common challenges, reinforce best practices, and prevent repeat issues by learning what we've observed in the field. By addressing these themes, we can strengthen safe work habits and ensure that everyone goes home safely at the end of the day.

Insufficient JSA

Thorough JSA

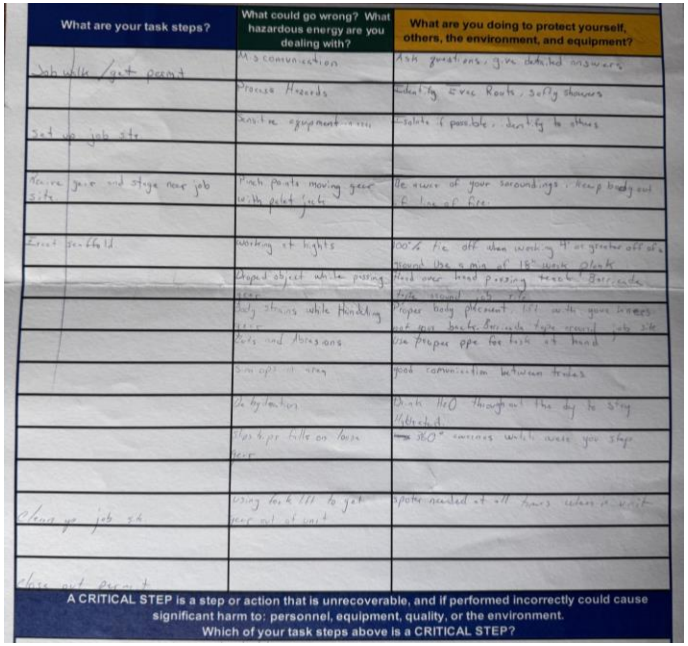


What are your task steps?	What could go wrong? What hazardous energy are you dealing with?	What are you doing to protect yourself, others, the environment, and equipment?
Install Pump	Pinch points	Be Safe

A CRITICAL STEP is a step or action that is unrecoverable, and if performed incorrectly could cause significant harm to: personnel, equipment, quality, or the environment.
Which of your task steps above is a CRITICAL STEP?

JSA's are a vital part of the job process and allow potential hazards to be identified.

If a job site is not properly examined, missed hazards increase the risk of injury. Identifying all potential risks at each phase of a job will ensure the work goes more smoothly and help all personnel to **Start Safe and Stay Safe**.



What are your task steps?	What could go wrong? What hazardous energy are you dealing with?	What are you doing to protect yourself, others, the environment, and equipment?
Job walk / get permit	Mis communication	Ask questions, give detailed answers
	Process Hazards	Identify Evac Routs, safty showers
Set up job site	Sensitive equipment [illegible]	Isolate if possible, identify to others
Receive gear and stage near job site.	Pinch points moving gear with palet jack	Be aware of your soroundings, keep body out of line of fire.
Erect scaffold	Working at hights	100% tie off when working 4' or greater off of ground. Use a min of 18" work plank
	Droped object while passing gear	Hand over hand passing technique. Barricade tape around job site
	Body strains while handling gear	Proper body placement, lift with your knees not your back. Barricade tape around job site
	Cuts and Abrasions	Use proper ppe for task at hand
	Sim ops in area	good comunication between trades
	De hydration	Drink H_2O throughout the day to stay hydrated.
	Slips trips falls on loose gear	360° awareness watch were you step
Clean up job site	Using fork lift to get gear out of unit	spotter needed at all times when [illegible]
Close out permit		

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Which of your task steps above is a CRITICAL STEP?

Soft Copy goes to Servicing Department. Hard Copy goes to the Job Site

Safe Work Permits

Along with JSAs, Safe Work Permits are an important part of the work process and serve as authorization and record of work performed. Additionally, like the JSA, a permit s used to assess hazards and document requirements and conditions such as atmospheric monitoring results, PPE, confined space details, emergency communications, and more.

It is vital that all areas of the Safe Work Permit are filled out correctly with all necessary information pertaining to the job and signed by the appropriate individuals.

Once complete, the soft copy of the permit must go to the Operations Shelter, and the hard copy must go to the job site.

Personal Protective Equipment

Missing goggles, improperly placed H2S monitors, lack of hearing protection, and damaged or unused gloves are frequent PPE related audit findings.

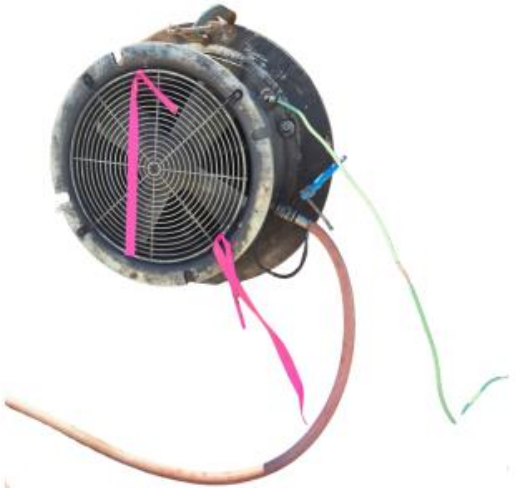
PPE is your last line of defense against the hazards faced in the workplace. Each of these can make the difference between a safe job and an injury. Proper utilization of PPE helps ensure you go home the same way you came in: safe.

Job Site (barricades/housekeeping/air movers)

When necessary for a job, ensure a barricade fully encloses the job site and that no sections are drooping or fallen.

Proper housekeeping helps ensure a job runs smoothly. Tools and equipment left on stairs creates an unnecessary risk of tripping or falling.

When performing work that requires air movers, ensure streamers are attached to the movers to identify proper air flow.



Automotive and Traffic Regulations

Any personnel who operates a motor vehicle inside the refinery are responsible to operate in compliance with state laws, Refinery Safety Rules, and all applicable requirements established in RSP-1713-000.

The use of mobile devices while driving is prohibited.
Seatbelts must be worn at all times while operating a motor vehicle.
Posted speed limits must always be adhered to. The maximum speed limit within the refinery is 20 MPH unless otherwise posted. The Wharf Causeway is 15 MPH. In congested areas such as around the Maintenance Shops, the speed limit is reduced to 10 MPH.

Start Safe and Stay Safe: Engagement questions

- What are some hazards you have seen that have been missed in a JSA that have impacted the job?
- What strategies do you use to remind yourself or other to wear PPE properly
- Which of these areas discussed do you think we struggle with most as a refinery?
  - What actions can we take to improve on this?

Changes to MOC Environmental Review

YTD permit deviations: 23

YTD DEI 1/2: 25

YTD DEI 3/4: 2

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- No more eMOC checklist
- Like the relief checklist, evaluation checklists are to be filled out, reviewed, and subsequent tasks to be designated by the knowledgeable department.
- **Starting September 1st**, Environmental will review each MOC using the Corporate Refining Environmental Review Checklist.

eMOC ENVIRONMENTAL CHECKLIST

Last updated: 3/31/2025

Completed by: Unit:

Date Completed: Checklist Revision No.:

MOC No.: Expected Start Date:

Brief Project Description:

VOID

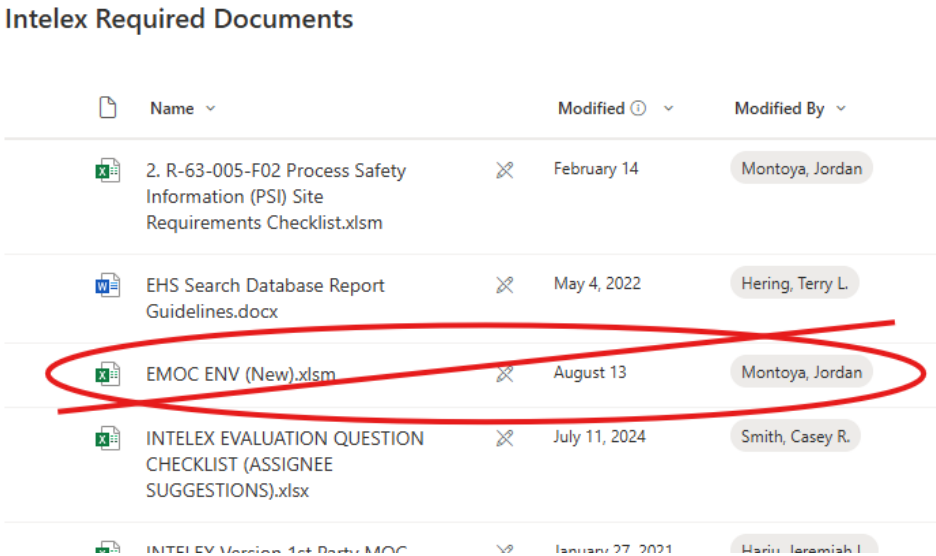
Indicate a "Y[illegible] or "No" [illegible]swer [illegible] questio[illegible] belo[illegible] proposed project or change. For any "Yes" [illegible]sponse [illegible]ica[illegible] he nu[illegible] of [illegible] que[illegible]n an[illegible]vide a brief explanation in the Comme[illegible]ectio[illegible]t th[illegible]nd of thi[illegible]rm.

G[illegible]NE[illegible]L		
Will the propos[illegible] [illegible]nge:	**Yes**	**No**
1.* Involve a chang[illegible] Routine M[illegible], Repa[illegible] and [illegible]nt (RMRR) or impact Maintenance, startup, and shutdown?		x
2.* Involve the use of any new chemicals, a new use for an existing chemical, an increased use of existing chemicals, or a change in chemical inventory?		
3. Be only temporary (i.e. all modifications to piping, equipment, procedures, etc. will be restored to original condition in <30 days)?		
4. Does this involve removal of trees, brush and/or other habitat removal activities?		
5. Does this change/create community impacts, increased traffic, glare, noise or odor issues?		

AIR		
Will the proposed change require or result in:	**Yes**	**No**
6. A change in the method of operation of a unit (i.e., a different method of receiving, utilizing, or managing a stream)?		
7. A change that results in increased operating time or annual reliability (uptime)?		
8. A change in the type of catalyst or chemical additive used in the process?		

Changes to MOC Environmental Review

- **RP will no longer complete the eMOC checklist** (link will be removed from the PSM website starting 9/1/25)
- Assign Intelex Environmental Evaluation task to the Environmental Representative (either to Enviro Specialist for designated area, or when applicable, program specific person)
- Provide a quality, detailed scope of work for each MOC in Intelex description
  - REDLINES – will need these prior to evaluation. Prelim red lines will need to be attached prior to evaluation always now.
- **Invite Environmental Rep to MOC meeting** (invitation required, but env presence not mandatory for hazard eval)



Changes to MOC Environmental Review

Role of the Environmental Representative

1. Attend MOC meetings, as necessary to clearly understand the scope of the MOC
2. Complete the Environmental Review Checklist
3. Attach the completed ENV Review checklist to the Intelex task
4. Assign any required action items (based on ENV review)

Env. Specialist	Env. Program	Units Supporting	Relevant MOC's
Frannie Graham	BWON LDAR	Crude, Vac, Rose	ZA - Heavy side
Crystal Salmon	CEMS & Air	Hill, DHT, JET, CFH,	ZA - Light side
Joe Sarr	Water & Tanks	Utilities & WWTP	ZC - Utilities & WWTP
Sean Woodard	Waste	Logistics	ZC - Logistics
Sara Gustafson	Flares & Permitting	Zone B	Zone B

MPC PROCESS SAFETY ADVISORY

GARYVILLE TEMPORARY UNIT DECONTAMINATION PIPING RUPTURE INC # 413768

PSA 25-07

Published 8/15/2025

On January 19, 2024, during shutdown & decontamination activities associated with the Amine Regeneration Units, a portion of the 4" temporary decontamination manifold blew apart, sending low pressure boiler feed water into the air. An Operator fleeing the area fell to the ground, incurring a shoulder injury that ultimately required surgery.

- **This incident was categorized as a PSE-1 due to the Lost Time Injury.**

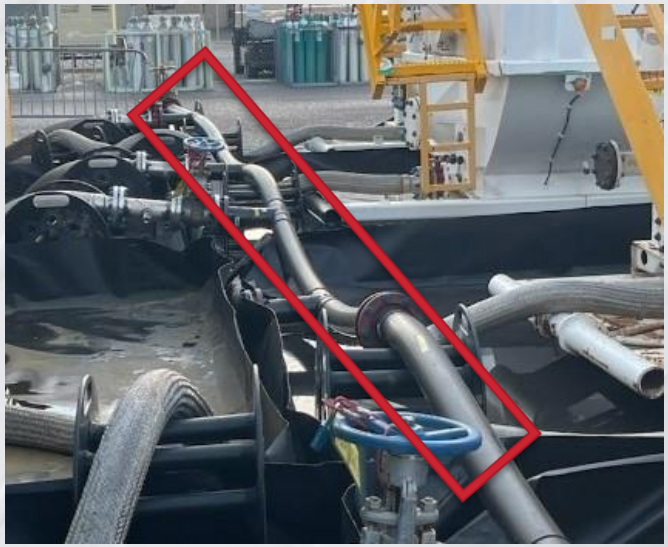
Important Details:

U232 TAR decon header inside battery limits (ISBL) was installed by Ohmstede, and a Temporary Piping Form was completed. This ensured the correct pipe spec was used ISBL.

Frac tanks, associated piping manifolds, and circulation pumps were installed by United Rentals (UR). UR was not given process specs. High Density Polyethylene (HDPE) piping was installed between frac tanks. No management system was used to ensure the right type of pipe was installed. The HDPE was not rated for decon process temps and catastrophically failed toward the end of the decon activities.

Causal Factor:

The need for a separate Temporary Piping Form to cover UR's portion of the scope was not recognized.



Marathon Petroleum Company LP

“The Rest of the Story”:

The Garyville refinery has historically used a Temporary Piping Form to cover numerous activities, including decontamination manifolds. Unfortunately, this process did not fully cover a portion of the header, which ultimately led to the installation of piping that was not designed for the process conditions. The investigation also determined that the Temporary Piping Form without another form of Management of Change (MOC) isn’t adequate to understand the hazards in the decontamination process. As a result of this incident, the Garyville refinery now utilizes a PMOC to cover all decon equipment. In addition, Garyville’s Temporary Piping Form has been modified to ensure that it is not utilized for any scope beyond its intent.

Link
GVL PMOC for TAR Unit Decon

DISCUSSION TOPICS:

- During installation of the HDPE piping, Operators questioned the United Rentals (UR) Technicians about the materials of construction. These questions did not prompt any action as UR technicians said they were installing what had been prescribed to them. Stop Work Obligation can be challenging! Stopping and asking questions was absolutely the correct thing to do.
  - Take a few minutes to discuss options we have after having asked questions and received assurances but still feel unsure.
  - How can we foster a culture of asking thorough questions and listening to those asking the questions?
- Despite our goal to capture all changes under a management system, gaps in our processes still arise and put personnel at risk.
  - Discuss routine changes within your sphere of control that may warrant an additional level of scrutiny.
  - How can we elevate our sense of vulnerability to help identify potential risk points?
- How are events that occur during startup, such as sulfiding catalyst, captured in a Management of Change system?
- Review similar events: PSA 16-02 GBR Fire at Temporary Pump and GBR Primary Absorber Temporary Steam Header Tie-in

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.	Division Managers	11/30/2025
Review site’s Management of Change process specific to decontamination efforts to ensure that all equipment (i.e., pipe, pumps, frac tanks, etc.) are fully vetted/covered.	PSM Managers	2/28/2026
Update RRD-1339 Unit Decontamination with outline of important items to consider when completing a change management process for Turnaround Decontamination. Include GVL PMOC for TAR Unit Decon as example in Appendix.	Erich Heitzmann	2/28/2027

Bring It Up!!!

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