Marathon Petroleum Corporation

REFINING SAFE WORK PERMIT

Permit No.:

SECTION I : PERMIT INFORMATION

Authorization
Date_____
Time Issued_____ ☐ AM ☐ PM
Time Expires_____ ☐ AM ☐ PM
Permit Extended Until _____ ☐ AM ☐ PM

Permit Type:
☐ Cold Work
☐ Hot Work
☐ Confined Space Entry

REQUIRED DOCUMENTS/CHECKLIST (Documented with permit)
☐ Grating/Rail Removal
☐ Excavation Form(s)
☐ Critical Lift/Crane JSA Plan
☐ Hydroblasting Checklist
☐ Inert Entry Checklist
☐ Electrical Hazard Assessment
☐ Hot Tap/In-Service Weld
☐ Isolation by Engineered Plug
☐ Vacuum Truck
☐ Live Flare Header Invasive Work
☐ Variance/Waiver
☐ _____
☐ _____
☐ _____
☐ _____

OWNING DEPARTMENT RELIEF
_____ ☐ AM ☐ PM (Name/Time)
_____ ☐ AM ☐ PM (Name/Time)
_____ ☐ AM ☐ PM (Name/Time)

EMERGENCY INFORMATION
Emergency Phone Number_____
Emergency Radio Channel _____
Owner Channel _____
Service Group Channel _____
Other Radio Channel _____
Muster Location _____

THIS PERMIT REFLECTS CONDITIONS AT THE TIME OF ISSUANCE. IF CONDITIONS OR PERMIT REQUIREMENTS CHANGE, STOP WORK AND NOTIFY THE OWNING DEPARTMENT AND SERVICING GROUPS INVOLVED.

Location/Unit_____ Equipment Number_____ Equipment Name_____
Additional Location Description_____
Servicing Group Company/Craft (Permit User)_____
Additional Servicing Groups Company/Craft _____
Detailed Work Description: (What and How) _____

Process Hazard Overview Reviewed? ☐ Yes ☐ N/A Work Order #_____

SECTION II : HOT WORK ☐ N/A

CONTINUOUS MONITORING FOR O_2 & LEL REQUIRED FOR ATTENDED HOT WORK IN PROCESS AREAS & TANK FARMS! MONITORING SHALL BE CONDUCTED AT THE IMMEDIATE HOT WORK LOCATION.

☐ **Non Attended Hot Work Source (low spark potential)**
☐ **Electric/Battery Powered Tool & or Equipment**
E.g., Use of Electrical Cords
Opening Explosion-Proof/Electrical Enclosures
Non-Explosive Proof Equipment
☐ **Internal Combustion Engine**
E.g., Mobile Equipment, Vehicle Entry, Compressor
☐ **Other:**_____
E.g., Abrasive Blasting, Concrete Breaking

☐ **Attended Hot Work Source**
☐ **Open Flame**
E.g., Propane/Gas Heater(s) or Burners, Oxy Fuel Welding, Torch Cutting
☐ **Spark Producing (sustained)**
E.g., Torch Cutting, Grinding, Electrical Resistance Welding
☐ **Post Weld Heat Treating / Annealing / Stress Relieving**
☐ **Other:**_____

Hot Work Mitigations & Considerations:
☐ Combustibles Removed, Covered, or Not Present within 35ft of Hot Work Source
☐ Sewers, Manholes, and Vents covered & sealed within 35ft of Hot Work Source
☐ Fire watch(s) with High Visibility Vest, Logged on Permit
Number of Hot Work Attendants Required:_____
☐ Communication Procedures:
to Servicing Group(s): ☐ Voice ☐ Visual ☐ Radio ☐ Air Horn ☐ Other: _____
to Emergency Services: ☐ Voice ☐ Visual ☐ Radio ☐ Air Horn ☐ Other:_____
☐ Fire Watch to remain 30 Minutes (if potential for a smoldering fire exists)
Means to extinguish a potential fire:
☐ Fire Extinguisher ☐ Charged Fire Hose(s) ☐ Charged Water Hose(s) ☐ Other:_____
☐ Spark containment
☐ Fire Blanket ☐ Welding Shield
☐ Other Requirements or Notes: _____

SECTION III : CONFINED SPACE PRECAUTIONS ☐ N/A

CONTINUOUS MONITORING FOR O_2, LEL, CO, & H_2S IS REQUIRED FOR ALL CONFINED SPACE ENTRIES! THE MONITORING SHALL BE REPRESENTATIVE OF THE IMMEDIATE WORK AREA.

Conditions:
☐ Confined Space Hazards Discussed
☐ Vessel/Configuration Hazards Discussed
☐ Coordinate Multi-Craft Work
☐ Temperature ≤ 110°F
☐ Excavation >4 ft
☐ Inert Entry
Notes: _____

Ventilation Type:
☐ Exhaust ☐ Dilution ☐ Natural Draft
☐ Mechanical Ventilation Bonded
☐ Review Ventilation Configuration & Setup
☐ Minimum 2,000 cfm per Welder
Notes: _____

Required Rescue Equipment:
☐ Safety Harness
☐ Retrieval/Life Line
☐ Anklets/Wristlets
☐ Non Entry Rescue Equipment with Winch Required for Vertical Entry >5 ft
☐ Other:_____
Notes: _____

CSE Requirements: ☐ **Initial CSE #:**_____
☐ **Rescue Personnel Available & Notified**
☐ MPC Emergency Response Team ☐ Third-Party Response Team ☐ Inert Entry ☐ Other:_____
☐ Attendant(s) with High Visibility Vest, Logged on Permit: No. of Attendant(s) Required:_____
Communication Procedures:
to Entrants: ☐ Voice ☐ Visual ☐ Radio☐ Air Horn ☐ Other:_____
to Emergency Services: ☐ Voice ☐ Visual ☐ Radio ☐ Air Horn ☐ Other:_____
☐ Signs Posted and Maintained at Access points
☐ Confined Space Reference Sheet (if applicable)
Lighting Equipment: ☐ Primary ☐ Secondary Lighting (e.g. Headlamp, Flashlight)

SECTION IV : ENERGY ISOLATION AND INVASIVE WORK

Invasive Work (RAM) Assessment ☐ N/A ☐Procedure/Mitigation List
Exposure Evaluation (EC x EV x EI = RAM Score)

Parameter	Value
Exposure Concern	_____
Exposure Volume	_____
Exposure Impact	_____
RAM Score	_____

Associated Hazards Identified:
☐ Inhalation
☐ Corrosive
☐ Material Above Auto-Ignition Temperature
☐ Hot Service/Thermal
☐ LEL/Fire
☐ Other:_____

RAM Mitigation Level:_____

Equipment Information ☐ N/A
Process Material Originally Contained:
_____
☐ Flushed and/or Cleaned w/:_____
☐ Neutralized w/:_____
☐ Purged w/:_____
☐ Drained
☐ Depressured

Energy Isolation ☐ N/A
Lockbox Number:_____
☐ Valve(s) Closed, Locked, & Tagged
☐ Single Point Isolation
☐ Minor Servicing Activities
☐ Blinded/Disconnected & Tagged
☐ Electrical Breaker Isolated
☐ Electrical Disconnected
☐ Not Isolated (Live)
☐ Electric Equipment
☐ Electric Tracing
☐ Steam Tracing
☐ Nitrogen Purge
☐ Steam Purge
☐ Isolation not holding (Leak By)
☐ Unable to Verify Depressured/Drained

Verification - Process
☐ Atmospheric Monitoring
☐ Pressure Gauges
☐ Bleeder Blind(s)
☐ Bleeder(s) Open
☐ Open to Atmosphere
☐ Other:_____

Verification - Electrical
☐ Electrical Isolation Verified
☐ Electrically Safe Work Condition (Ref. RSP-1162)

Notes/Comments:
_____
_____
_____

Equipment and Line Breaks ☐ N/A
☐ First Break – Tag & Owning Department Present for Break
☐ Notes/Comments:_____
_____
☐ Containment Needed
☐ Vacuum Truck Needed

SECTION V : ATMOSPHERIC MONITORING & EQUIPMENT TESTING - ☐ N/A

HOT WORK AND CONFINED SPACE ENTRY MUST BEGIN WITHIN 2 HOURS OF THE INTIAL MONITORING. CSE MID SHIFT MONITORING RESULTS MUST BE RECORDED ON THE PERMIT.

Time							
Oxygen (19.5% - 23.5%)	%	%	%	%	%	%	%
LEL (0%* HW) (<10% CSE)	%	%	%	%	%	%	%
CO (<25ppm)	ppm	ppm	ppm	ppm	ppm	ppm	ppm
H_2S (<20ppm)	ppm	ppm	ppm	ppm	ppm	ppm	ppm
VOCs (<100ppm)	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Equipment ID							
Current Bump/Calibration	☐	☐	☐	☐	☐	☐	☐
Benzene (<0.2ppm)	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Equipment ID							
Current Bump/Calibration	☐	☐	☐	☐	☐	☐	☐
pH Level							
Temperature							
Other_____							
Initials:							
Atmospheric Monitoring Notes:							

CONTINUOUS MONITORING REQUIRED ☐ Yes ☐ No
(Continuous monitoring is required for all Attended Hot Work in process areas, all Confined Spaces, and Identified instrument analyzer buildings)

If Yes, check contaminant(s)/hazard(s) below:
☐ O_2 & LEL Monitoring
☐ Four-Gas Monitoring: O_2, LEL, CO & H_2S
☐ Temperature Monitoring
☐ Other (list):_____

Monitoring Location:
☐ At the source of Hot Work
☐ Representative of Breathing Zone (required for confined space entry)
☐ Other:_____

Notes/Comments:_____
_____
_____
_____

*- HW may be approved up to 10% per site policy.

SECTION VI : PPE

Safety Glasses w/ side shields, hearing protection, hand protection (minimum cut level A3), hardhat, safety shoes, H_2S monitor and FR clothing (NFPA 2112) are required to enter any process area & tank farms.

☐ Goggles
☐ Face Shield
☐ Double Hearing Protection
☐ Fall Protection
☐ Disposable Coveralls (FR)
☐ High Visibility Clothing/Vest

Gloves:
☐ Impact
☐ Thermal
☐ Cut Level A4+
☐ Chemical:_____
☐ Other:_____

Specialty PPE
☐ Asbestos PPE
☐ Welders PPE
☐ Arc Flash PPE
☐ Electrical Shock PPE
☐ Hydro Blasting PPE
☐ Rope Access PPE
☐ Other:_____

Chemical Protective Clothing
☐ Chemical Coveralls or Jacket/Pants
☐ Chemical Protective Boots
☐ Other:_____

Alky PPE
☐ Level A
☐ Level B
☐ Level C
☐ Level D

Supplied Air Respirators
☐ SCBA
☐ Airline w/Egress bottle & Bottle Watch
☐ Positive Pressure Hood
☐ Helmet/Radio (Inert Entry)
☐ Supplied Air Back Up
☐ Other:_____

Cartridge Respirators
☐ Half Face ☐ Full Face ☐ PAPR
☐ P100 Particulate Cartridge
☐ Multi-Gas Cartridge
☐ Combination Cartridge (Particulate and Multi-Gas)
☐ Other: _____

Respiratory Protection Requirements

Contaminants	Half Face	Full Face	Supplied Airline FF Resp. w/ Escape Cylinder or SCBA
Ammonia	25*-50*	50-299	>300
Benzene	0.2 -10	10 - 50	>50
CO	N/A	N/A	>25
Total VOC	100-300	300-499	>500
H_2S	20-99	20-99	>100
SO_2	0.5-5	5 to 25	>25

Note: above values listed are in ppm (parts per million) *Chemical goggles must be worn.

PPE Notes:_____
_____
_____

SECTION VII : GENERAL

Potential Chemical Hazards: _____ (SDS available upon request)

Additional Potential Hazards: ☐ Particles/Debris ☐ Slippery ☐ Obstructions ☐ Visibility ☐ Uneven Surfaces ☐ Dropped Tools/Materials ☐ Sharp Edges ☐ Pinch Points ☐ Line of Fire ☐ Ergonomics
☐ Hot Equipment in Area ☐ Shutdown Buttons ☐ Other: _____

☐ Assessed Nearby Electrical Hazards
- ☐ Overhead Lines (20ft Clearance)
- ☐ Conduit in Good Condition w/ No Exposed Wiring

☐ Cold Work Methods Required
- ☐ Non-Sparking Hand Tools
- ☐ Air Powered Drill/Saw with cutting oil
- ☐ Other: _____

☐ Work Area Barricaded & Tagged Type_____
☐ Wet Method (Silica Controls)
☐ Spotter Required
☐ Air Movers
☐ Properly Grounded & Bonded
☐ No Venting or Draining in Area

☐ SIM OPS (other work nearby)
☐ Safety Shower Location: _____
☐ Portable Eyewash/Drench

Other Permit Requirements/Comments/Notes _____

SECTION VIII : JOINT JOBSITE VISIT

A JJSV is required at minimum for invasive work, confined space entry, attended hot work, blanket permits, or at the request of the Owning Department or Servicing Group(s).

JJSV required ☐ Yes (If yes, complete questions below) ☐ No (If No, Explain):_____ Post JJSV required ☐ Yes ☐ No

☐ Permit Requirements Reviewed at the Jobsite
☐ Confirmed Correct Job Location & Equipment Identification
☐ Work Scope & Hazard Mitigations Understood
☐ Energy Isolation Verification Demonstrated
☐ Work Area Reviewed For Electrical Hazards
☐ Identified Emergency Considerations (Wind Direction Identifier & Egress Routes)

SECTION IX : WORK AUTHORIZATION SIGNATURES

Responsible Person	Printed Name	Initial Signature	Printed Name	Work Extension Signature	CW	HW	CSE
MPC Owning Department					X	X	X
MPC Owning Department Supervisor					X[3,5]	X[3,5]	X
Permit User Representative					X	X	X
Permit User Supervisor					X[3]	X[3]	X
Contractor Coordinator							X[4]
Competent Person					X[1]	X[1]	X[1]
Safety Professional							X[2]
MPC Confined Space Entry Supervisor							X
Title:					Site-specific		
Title:							

X1 - Required if Excavation, X2 - Required for Initial Entry, Exceptions Include: Vessel Skirts, Fin Fans, Cooling Water Fan Shrouds, New Equipment Not Yet Put Into Service
X3 - Required if Isolation cannot be Verified Depressured/Drained/Isolation not holding, X4 - Required if Contractor Involved with CSE, X5 - Required if RAM Mitigation Level 1

ADDITIONAL SERVICING GROUP REPRESENTATIVE SIGNATURES

Printed Name:	Signature:	Company:	Radio Channel:	JJSV Reviewed	Owning Department Initials	Time In:	Time Out:
				☐			
				☐			
				☐			
				☐			
				☐			
				☐			

SECTION X : SERVICING REPRESENTATIVE DEBRIEFING NOTES

(If applicable, required for Confined Space Entries)

☐ No problems encountered during entry
☐ Attended hot work, supplied air work, or confined space entry never occurred during the permitted work scope. (List reasoning below)
☐ Other problem encountered (Explain below)

COMPANY/CRAFT	COMMENTS

SECTION XI : PERMIT CLOSE OUT

Communicate the status of the job to the Owning Department before signing off. The Owning Department reserves the right to request a Post Joint Jobsite Visit.

Servicing Group

☐ Post Joint Jobsite Visit Completed (if required by permit)

Work Area In Safe State? ☐ Yes
Job Status: ☐ Complete ☐ Incomplete ☐ Ongoing
Personal Locks Removed? ☐ Yes ☐ No ☐ N/A
Group/Craft Locks Removed? ☐ Yes ☐ No ☐ N/A
Debrief Section Completed? ☐ Yes (required for Confined Space Entry) ☐ N/A
Verbal Communication of Job Status to Owning Department: ☐ Completed
Permit User Name:_____
Permit User Signature: _____
Time:_____ ☐ A.M. ☐ P.M.

Owning Department

☐ Permit Closeout Not Approved
Comments/Notes:_____
_____
_____
Owning Dept. Name:_____
Owning Dept. Signature:_____
Time:_____ ☐ A.M. ☐ P.M.

FIRE WATCH, SUPPLIED AIR ATTENDANT/BOTTLE WATCH, AND CONFINED SPACE ATTENDANT

(Supplemental Sign-in/Sign-out Log must be turned in with Permit)

Name	Company	Fire Watch	Conf. Space Attendant	Bottle Watch	Standby	Date	On	Off	On	Off	On	Off	On	Off
		☐	☐	☐	☐									
		☐	☐	☐	☐									
		☐	☐	☐	☐									
		☐	☐	☐	☐									
		☐	☐	☐	☐									
		☐	☐	☐	☐									
		☐	☐	☐	☐									

CONFINED SPACE SIGN-IN/SIGN-OUT FOR AUTHORIZATION ENTRANTS

(Supplemental sign-in/sign-out log must be turned in with Permit)

Name	Company	Date	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out