

Work Order#

Tesoro Anacortes Refinery - Part A

Permit #

Permit Requester:

Audited by:

Request Section (information transferred from work request or by persons performing work)

1a

Cold Work

Hot Work

Confined Space

1b

Low Energy

High Energy

Non Permit Required Confined Space

1c

Description of Work (specific to prep of equip):

Live Electrical Work

1d

Planned Start Time (Coordinator):

AM

PM

Actual Start Time (Including Prep):

AM

PM

Permit Date:

Area/Unit

Ops Radio Ch.

2a

Review Section (completed by Operations, reviewed by Craft) to be reviewed jointly with JHA

Other Documents Needed:

Energy Isolation List/LOTO Boxes:

Electrical Equipment Status:

Other Documentation:

SR-5 Variance

SR-17 Excavation / Dig Paperwork:

SR-45 Hot Tap package

Attach blind list to this permit if applicable. Attach other required documents as applicable.

(Box Numbers and other notes)

NA required for each field below not applicable. If Conditions change, a new JJSV must be held and sections below will be updated.

(2b) Process Hazards

(2c) Process Condition

(2d) Review Items with Work Crew

Temperature

Pressure

Acid/Caustic/H2S

Hydrocarbon

Hydrocarbon + Benzene

Dust / Particulates / Fibers

Heat Stress Analysis (>95 Ambient)

Equipment Service

IN

Out

Chemical Information Reviewed

Evacuation Routes Clear & Understood

Eye Wash / Safety Showers Available

Spill Containment Needed

Sensitive Equipment Nearby

Other Projects in Close Proximity

Nearby Venting of Process Equipment

HOT WORK PRECAUTIONS (does not apply for low energy hot work) 2e

Flam/Comb materials within 35 feet has been removed or covered

Fire watch has an orange vest, will stay for 30 minutes after job

100% spark containment

Sumps/Drains/Manholes within 35 feet are covered

Process lines or equipment open to atmosphere in the effective fire zone?

Hot Tap package reviewed and complete?

Welding leads and connectors have been inspected

Welding machines are grounded at nearest point to weld

Fire equipment is inspected and ready for use at job site

(2f) Confined Space / Rescue Requirements

Safety Specialist Notified for Initial Entry:

Entrapment, Engulfment Hazards Reviewed

Pressurized hazardous or flammable Gases Reviewed

Confined Space Rescue Plan Completed and Attached to this Document;

Ventilation Evaluated:

Air Mover Installed/Grounded/Verified by Supervisor:

Comments:

Atmospheric Gas Testing

See SR-29 for Continuous Monitoring Requirements (documented every 60 minutes)

3b

Continuous Monitoring Required (3d)

Write Test Times in the () spaces.

Pre Vent

Post Vent

If additional spaces are needed, the user can split the cells in half as necessary

() () () () () () () () () ()

Acceptable Ranges

3a Monitor #

Percent Oxygen

Lower Explosive Limit

Hydrogen Sulfide

Carbon Monoxide

Sulfur Dioxide

Hydrocarbon

Benzene

Other

Permit Authorization

4a

List any Special Precautions (related to process or unit hazards). Use this section to document any changes to the permit post authorization.

Operations Authorization (Part A)

Unit Operator

Printed Name

Signature

Date

N/A Competent Person

Printed Name

Signature

Date

Craft Acknowledgement - ALL JHA's (Part B) Shall be Logged in Below

See the back side of Permit Revalidation Form if more space is needed

Authorized Person (printed name)

Activity

JHA #

JJSV Time

Company

Start Date

Completed

Permit Close Out

5a

Job Complete

Job Not Complete

additional permits may be needed

Have Safety Devices or Bypasses returned to normal?

Have Guards or Insulation been removed without adequate mitigation in place?

5d

Unit Operator Verifies this permit is complete:

Signature:

Date:

Hot Work Guide		PPE Guidance Chart						
High Energy Work: Burn / Weld / Grind Open Flame Hot Tap		*Indicates minimum requirement unless otherwise indicated by IH Testing						
Low Energy: Automotive/Vehicle Entry Cameras Low Voltage Equip <24 volts UT Inspection Light Plants Other Tools & Equipment Air/Electric								
General Guidelines *Gas Testing is required for all Hot Work Activities. *Sewers are not required to be covered for low energy work.		Hydrocarbon >100	Respirator	Gloves	Body	PEL	STEL	IDLH
		Hydrocarbon + Benzene >50	FF - Organic	Nitrile	CPC	100	NA	1000
		Hydrocarbon + Benzene >10	Supplied Air	Nitrile	CPC	1	2.5	500
		Hydrocarbon + Benzene 1 - 10	FF - Organic	Nitrile	CPC	1	2.5	500
		Acid - HCL less than 250	HF - Organic	Nitrile	CPC	1	2.5	500
		Acid - HCL greater than 250	FF - Organic	Nitrile	CPC	5		50
		SO2 - greater than 100	Supplied Air	Neoprene	CPC	5		50
		SO2 - 100 to 20	Supplied Air	Neoprene	CPC	2	5	100
		SO2 - 20 to 2	FF - Organic	Neoprene	CPC	2	5	100
		H2S Greater than 10	HF - Organic	Neoprene	CPC	2	5	100
		CO Greater than 25	Supplied Air	Neoprene	CPC	10	15	100
		Hex Chrome in Confined Space	Supplied Air	NA	NA	25	200	1200
		Carbon Steel in Confined Space	Supplied Air	Leather	Tyvec	5 ug/m		
		Hex Chrome Nat Ventilation	PAPR	Leather	Tyvec			
		Carbon Steel Nat Ventilation	HEPA	Leather	Tyvec			
		Particulates/Dust over 10 mg/m3	HEPA	Leather	Tyvec			
		Silica	HEPA	Leather	Tyvec	10 mg/m	See Safety	See Safety
		Mercury	*FF - HEPA	Nitrile	Tyvec	.1 mg/m3	.15 mg/m3	NA
		Mercury		Nitrile	CPC	0.01	0.03	2
			*PAPR	Nitrile	CPC	.1 f/cm	NA	NA
*Part B (JHA) is not required for Low Energy Hot Work that does not present any additional hazards, does not require fall protection, or require PPE beyond that which is considered "essential" in SR-40		*CPC - Chemical Protective Clothing						

PRIMARY EVACUATION POINTS

MAIN GATE-ASSEMBLE IN CAFETERIA
GATE 20-EAST OF ALKY/BI UNIT
GATE 14-WEST OF CR/NHT UNIT

SECONDARY EVACUATION POINTS

GATE 26-8TH ST. EAST OF TCR
GATE 10-SOUTHWEST OF TANK 60
WHARF ASSEMBLY POINT

ALL CLEAR / SAFE RETURN TO WORK

WHEN THE INCIDENT CAUSING THE EVACUATION IS UNDER CONTROL AND IT HAS BEEN DETERMINED THAT IT IS SAFE FOR ALL PERSONNEL TO RE-ENTER THE PLANT, AN ALL CLEAR SIGNAL WILL BE ANNOUNCED OVER THE LOCALIZED EVAC INTERCOM SYSTEM. UNDER CERTAIN CIRCUMSTANCES, A PARTIAL RETURN TO UNAFFECTED AREAS OF THE PLANT MAY BE ALLOWED. IN THAT SITUATION, JUST RADIOS WILL BE USED TO INFORM THE EVACUATION WARDENS WHAT AREAS ARE SAFE TO RE-ENTER.

WHEN ALARM IS SOUNDED, YOU SHOULD REACT IN THE FOLLOWING MANNER:

1. STOP ALL WORK IMMEDIATELY.

2. STOP ALL DRAINING OR VENTING OF FLAMMABLE OR COMBUSTIBLE MATERIAL IF POSSIBLE, SECURE OPEN FLANGES.

3. SHUT OFF ALL FIRE IGNITION SOURCES & EQUIPMENT, INCLUDING TURNING OFF VEHICLES. LEAVE KEYS IN THE IGNITIONS.

4. RETRACT RADIATION SOURCES (PILL) INTO CAMERA..

5. EVACUATE THE AREA ALONG THE MOST DIRECT & SAFE PATH TO THE NEAREST & SAFEST ASSEMBLY LOCATION

EMERGENCY PHONE DIAL 333

NOTIFY OPERATIONS

FIRE ALARM 90 SECOND (STEADY) SIREN

TESORO REFINING AND MARKETING COMPANY

ANACORTES REFINERY

TESORO ANACORTES EVACUATION POINTS AND FIRE ZONE MAP

APPROVED

DATE

APPROVED

DATE

APPROVED

DATE

APPROVED

DATE

Plant Communication			
For Emergencies - Dial 333 or use a Plant Radio to communicate the emergency to Operations Refinery Process Units *Refinery Safety Inspectors stay on the zone channel they are assigned to			
Zone A - CH.3 23-OP Supr 5-NHT BSU 6-Crude Unit 7-VF SHU FOB 8-Fur/JFT/CWP 9-CFH DHT 10-CR RSC Splitter 11-Rose/CGS	Zone B - CH.4 24-Op Supr 12-CC Unit 13-FRAC Unit 14-GR Unit 15-Treaters 16-Boilers 32-BI Bu Unit 33-Alky Reactors	Zone C - CH.5 25-Op Supr 18-Tank Farmer 19-Blender 21-Asphalt Op 41-Loader/Gauger Zone C - CH.6 20-B/H Operator 22-Effluent Zone C - Wharf Op - CH.2	Zone E Maintenance - CH.1 Construction - CH.10 Security - CH.16
End of Job De-Brief / Permit Audit Notes			