Marathon Petroleum Company LP				
Job Safety Analysis (JSA)	Document No.: RSW-SAF-059-DT	Approval Date: 04/28/16	Page 1 of 4	
	Revision No.: 7	Next Revision Date: 04/28/21		
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1.0 PURPOSE

- 1.1 The purpose of this procedure is to describe the Job Safety Analysis (JSA) process. This description will communicate how the JSA process is used to identify and assess hazards associated with a specific activity and implement control measures to eliminate or minimize hazards, prior to beginning work.
- 1.2 To ensure that, prior to carrying out an activity or task at Michigan Refining Division (MRD), all potential hazards to safety, health and the environment have been identified and measures have been taken to eliminate or mitigate those hazards.

2.0 SCOPE

2.1 This procedure applies to all persons working on MRD property, including contractors and visitors.

3.0 PROCEDURE

- 3.1 JSA Description
 - 3.1.1 A planned activity is broken into a number of smaller tasks.
 - 3.1.2 Each task is reviewed by a team of selected personnel to identify potential hazards.
 - 3.1.3 The team will decide whether these hazards are adequately controlled.
 - 3.1.4 The process may identify requirements for new controls, additional PPE, safe work practices, modifications to existing controls, environmental controls, etc. It may also highlight the need to further assess a specific step.
 - 3.1.5 Benefits of a JSA Process include:
 - The job will be safer
 - Well organized training tool
 - Accident investigation tool
 - Increased knowledge of equipment in your area
 - Opportunity to increase efficiency of the job
 - Promotes team spirit and encourages employee involvement
- 3.2 <u>Performing a JSA</u> A JSA is a three step process. After selecting a job, observe the job as it is being performed or walk through the job step by step. Ideally, JSAs will be performed for jobs with a high frequency, jobs with a high frequency of accidents, jobs that have produced recordable injuries, fatalities, lost time injuries or environmental harm, jobs that have potential for causing serious injury or harm, new jobs and jobs in which equipment or procedures have changed.

After selecting and observing, the three step JSA process will begin. Use the <u>JSA Form</u> to record the information collected during the process.

3.2.1 1). Identify Basic Job Steps

3.2.1.1 Break the job down into its basic steps and record them on the JSA form.

- 3.2.1.2 Avoid making the breakdown so detailed that an unnecessarily large number of steps result. Also avoid making the break down too general, so that basic independent steps are not recorded.
- 3.2.1.3 To determine the basic job steps, ask "What step starts the job?", "What is the next basic step?" and so on.
- 3.2.1.4 Each step tells what is done, not how.
- 3.2.1.5 Each step should begin with an "action" word, like "remove", "open", or "weld".
- 3.2.1.6 The action is completed by naming the items to which the action is applied, for example, "Remove extinguisher", "Carry to fire".
- 3.2.1.7 Each step should be numbered to indicate the order in which they are performed.

3.2.2 2). Identify Potential Hazards

- 3.2.2.1 Examine each step carefully for any hazardous behaviors, potential dangers, or conditions that might reasonably occur during the performance of that step.
- 3.2.2.2 Explanations of hazards should be short phrases which describe both the agent causing the hazard and the potential result, such as "Back strain from lifting box".
- 3.2.2.3 Label each hazard in a way that corresponds to the related job step. For example, job step (2) hazards should be labeled 2A, 2B, etc.
- 3.2.2.4 To help identify potential hazards ask pertinent questions. Examples of questions to ask include:
 - Is there danger of being struck by, struck against, or otherwise making injurious contact with an object?
 - Can the employee be caught in, on, or between objects?
 - Can the employee slip or trip?
 - Can the employee fall on the same level or to another? Fall protection required?
 - Can the employee strain themselves by pushing, pulling or lifting?
 - Is the environment hazardous (toxic gas, vapor, mist, fume, dust, hear or radiation)? Extra respiratory protection? Continuous monitoring?
 - Does the nature of exposure to a material warrant additional PPE?
 - Are there hidden sources of energy? Is there a danger of an environmental hazard?
 - Is there a possibility of contact with electric current?

3.2.3 3). Recommended Corrective Action or Procedure

- 3.2.3.1 Develop corrective recommendations or procedures for the hazards identified. Begin by trying to:
 - Engineer the hazard out of the operation.

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- Provide guards to protect workers from the hazard (e.g., guards, safety devices).
- Provide personal protective equipment (PPE).
- Provide job instruction training/safe work practices.
- Maintain good housekeeping
- Good ergonomics (positioning the person in relation to the machine or other elements in such a way as to improve safety).
- Changing the environment by removing hazardous materials or opening up the work place.
- Eliminate the job completely.
- Have specialists perform the operation or procedure.
- 3.2.3.2 List the recommended safe operating procedures. Begin with an "action" word. Say exactly what needs to be done to correct the hazard, such as, "lift using your leg muscles". Avoid general statements such as "be careful".
- 3.2.3.3 List the required or recommended personal protective equipment necessary to perform each step of the job.
- 3.2.3.4 Give a recommended action or procedure for each hazard
- 3.2.3.5 Serious hazards should be corrected immediately. The JSA should then be changed to reflect the new conditions.
- 3.2.4 Review input on the JSA form for accuracy and completeness.
- 3.2.5 Submit the JSA for supervisory/management/foreman approval.

3.3 JSA Handling

- 3.3.1 For work where a JSA is completed and requires a work permit:
 - 3.3.1.1 Completed JSAs should be turned in with the Safe Work Permit when work is completed and submitted to the Safety Department with normal Safe Work Permit submissions.
 - 3.3.1.2 Completed JSAs are subject to periodic audits.
 - 3.3.1.3 Please refer to RSW-SAF-009-DT DRIVE Safety Manual for how the JSA is involved in the DRIVE Safety Process.

4.0 DEFINITIONS

4.1 <u>Job Safety Analysis (JSA)</u> – A process used to identify and assess hazards associated with a specific activity and implement control measures to eliminate or minimize hazards, prior to beginning work.

5.0 REFERENCES

- 5.1 Maraweb Information Service. JSA Home Page. http://mweb.fdy.moc.com/hes/jsa/.
- 5.2 RSW-SAF-009-DT DRIVE Safety Manual

6.0 ATTACHMENTS

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6.1 <u>JSA Form</u> (Link)

7.0 REVISION HISTORY

Revision number	Description of change	Written by	Checked by	Effective date
3	Updated Document Number	E. Dvorak	L. Mazur	01-05-10
4	Minor Updates and Full Review	E. Dvorak	L. Mazur	03-25-10
5	Full Review no changes	E. Neubauer	S. Windom	04-10-13
6	Updated header per RGD- 1051-DT, corrected dates in footer	F. Ebbert	J. Rabideau	11-01-15
7	Updated to clarify process for submitting JSAs with Safe Work Permits	A. Hetu	J. Rabideau	4/28/16