2016

APPLICATION FOR THE ACCREDITATION OF SAFETY PROCESSES ON THE PRINCIPLES OF BEHAVIOR

Marathon Petroleum Company, LP
Ohio Refining Division
Canton, OH
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IDENTIFYING INFORMATION

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BACKGROUND CONDITIONS

GEOGRAPHIC & PHYSICAL CONDITIONS

The Ohio Refining Division is located in Canton, Ohio and has been in operation since 1930. The plant occupies approximately 180 acres and is one of 4 petroleum refineries in Ohio. The bulk of work is performed outside during all seasons.

Our refinery is divided up into distinct work areas; maintenance, operations (north and south), product movement, laboratory, utilities and supervision. Each work area is integrated towards a Production Centered Organization to achieve maximum efficiency and safety.

GOODS AND SERVICES / PHYSICAL AND MACHINERY HAZARDS

Operationally, ORD is a fully integrated process. A steady stream exists from the moment raw materials enter the plant until finished products leave via truck, railroad car, or pipeline. This requires 365 day 24 hour operation. ORD currently processes approximately 100,000 barrels per day of crude oil which is refined into a product mix of approximately 48% gasoline, 25% fuel oil, 18% asphalt, and 9% other products. The makeup of this production will vary depending on the type of crude used as charge stocks. ORD has expanded in the crude charge circuit and has begun refining Utica shale crude stock. This was the direct reason we are now able to process roughly 100,000 barrels a day in comparison to 86,000 barrels previously.

Operations include crude fractionation, catalytic cracking, hydro-treating, reforming, alkylation and sulfur recovery. This is not the total limit of operations, but includes the bulk of the work performed. These processes require tanks, vessels, pumps, compressors, control valves, blowers, fans, safety trip systems, and computer controls.
EMPLOYEE WORK FORCE

ORD currently employs 352 total employees, 164 salary, and 188 hourly.

**Age:** The average age of the employees at ORD, is 43 years old.
**Length of Service:** The average length of service at ORD is 11 years.
**Union:** Hourly employees are represented by Steelworkers Local #1450.
**Contractors:** Currently there are approximately 350 contractors on site regularly.

RECENT SAFETY INITIATIVES

Volunteer Protection Program (VPP)

The ORD is still actively participating in achieving VPP Star Qualification.

Satellite Safety Boxes

The BBS Committee has designed, managed, installed, and stocked Safety Satellite boxes throughout the refinery. These boxes contain essential Personal Protective Equipment (PPE) such as gloves, ear plugs, safety glasses, danger tape, goggles, and face shields. We currently have 11 boxes placed strategically in process units with the intention of expanding to 17 total boxes. The idea behind these boxes was a direct result from the data that was compiled from observations. To date over 800 items have been utilized from these safety boxes to assist workers throughout the refinery who are in need of PPE.

Improved lighting by process sample stations

Recently, several BBS observations have noted poor lighting at process sample stations. The Safety and Engineering Departments have taken this data and installed several new LED light stations to eliminate these hazards throughout the refinery.

Advanced Paving Improvements

Since 2012, there have been several paving projects throughout the refinery to improve walking working surfaces. Several gravel areas have been replaced with paving or concrete to help eliminate hazards.

Firewater System Upgrades

Throughout the refinery, Marathon has invested in several upgrades to the firewater system. Due to the increased operational capacity and growth, the need was recognized and projects were enacted.
Human Machine Interface Upgrade (HMI Project)

Marathon is in the process of building a new center to house the console control operators for the entire refinery. This project is significant in the sense that the console control operators will now be outside of the refinery’s immediate blast zone. Currently, this operation is stationed next to several surrounding process units and was identified by several groups within the Marathon organization as a risk needing to be addressed.

Full-Time Process Safety Management (PSM) Representative

The union has negotiated to have a full time hourly PSM Representative to oversee daily activity. This representative actively helps to incorporate our message into the PSM process when updating procedures, unit training, and project coordination.

Advanced Glove Program

The Marathon Safety Department has done an excellent job in re-vamping our glove program. We had a spike in hand injuries in 2013 and swift action was taken to improve our options for glove selection. Different vendors have supplied us with various levels of cut and impact protection to better suit the task at hand.

Safety Training

ORD employees receive various training classes on safety topics. Below is a list of some of the topics covered by the hourly workforce on an annual basis.

- Fire Training
- Hot Work Permit Training
- Aerial Man Lift Training
- Confined Space Permit Training
- HF Acid Training
- Life Critical Standard Practice Instructions (SPI)
- Safety 1 Training
- Benzene Awareness Training
- Lock Out Tag Out Training
- Hazardous Material Handling

Out of Service Demolition projects

Various projects throughout the refinery have been underway to eliminate out of service equipment. This equipment has been problematic in colder weather resulting in releases and leaks due to inadequately decommissioned equipment. Although these were not noted from observations, this problem has been identified and improvements have been made.

New Radio System

Each employee is now assigned a digital radio that has GPS tracking. This tracking can be utilized in an emergency situation and the employee can be located via our security team. The radio also utilizes an emergency alarm notification. Each radio has an orange button that can be pressed when an emergency situation arises. The security team receives this notification and takes necessary steps to ensure the employee’s safety as well as make the appropriate notifications.
Improved and Upgraded Flame Retardant Clothing Program

ORD now supplies each employee with a stipend to purchase new Carhartt FR 2112 uniforms. The clothing is an upgrade in quality and options from our previous uniforms.

Fall Protection Harness

ORD has been implementing improvements to fall protection equipment onsite. The harnesses have more comfort features and utilize personal retractables to decrease free fall distance. Individual harness assignments are also being considered to improve availability.

Chain Wheel Tethering Project

In late 2013, chain wheel operated valves were all accompanied with a tethering device in case the chain wheel came unattached. Existing chain wheels are being retrofitted with tethers. This has been a large project to take on, but has proven very successful in eliminating the risk of injury.

H2S Mitigation

H2S has been an industry wide concern for years, and our observations have provided the ORD Safety Department with valid data to help combat this issue. Our H2S monitors in the past proved to be insufficient in loud environments. This complaint was noted through several employee interviews and incident investigations. In 2013, an improved H2S monitor was assigned and distributed to each employee. The Tango TX1 is much louder in notifying the operator of any H2S exposure. This model also has a much stronger vibrating alert and is not able to be manually reset until the device is docked and the information is documented.

An H2S scavenger was also instituted in the process lines to help decrease H2S when loading asphalt into railcars and trucks. This scavenger is also utilized in the waste water treatment portion of the refinery. This chemical injection is something that Marathon has started and hopefully this trend spreads industry wide. The BBS process had noted in several observations that the ventilation system on the truck loading racks needed improvement. The system was totally upgraded with the help and guidance of Safety and Engineering.
DESCRIPTION OF OUR BBS PROCESS

The S.W.O.R.D. (Safely Working Ohio Refining Division) Committee is an hourly owned and operated BBS process that includes contractor personnel and salaried employee involvement. The process is completely voluntary and open to anyone who wishes to participate. Every employee at ORD receives a generalized Behavior Based Safety background and training class to explain the process in its entirety. Voluntary observers receive specific training in how to conduct and complete safe work observations. The process is completely anonymous, and holds a “no name, no blame” policy that is supported by our corporate office.

Mission Statement

Our mission is to create and sustain a safer atmosphere and work environment at the ORD by empowering and involving the hourly work force to stop unsafe acts by performing quality Behavioral Based Observations.

In the process of utilizing our observational data, we will identify our gaps in hazard recognition and strive to create a zero injury workplace at the ORD.

Recently the S.W.O.R.D. Committee has undergone a few positive changes in the continued development of the process. In April of 2015, a new facilitator was elected into office along with a new co-facilitator. Nancy Miller is the current facilitator and she is backed by the co-facilitator J Rob Coss. The committee has also developed new ways to analyze the valuable data accumulated through safe work observations. Barrier reports have been created and are analyzed along with the top at risk behaviors each month. Each at risk behavior is classified into one of three types of barriers.

**ENABLED** – An at risk behavior that is totally in the control of the individual. Moment of choice! Everything is in place to work safely, but the choice to bypass safety measures is made. This includes forgetting to use safety measures and/or awareness of hazards.

**DIFFICULT** – An at risk behavior that requires the individual to put forth a measure of effort to work safely. Example would be PPE, tools or equipment not convenient; may need more help; may need to reposition oneself to the work; may need to read or understand directions or procedures.

**UNENABLED** – An at risk behavior that includes circumstances in which the individual has no control. This can be workplace conditions, PPE that is required but not available, policies, procedures, and training or lack thereof.

Identifying the barriers has helped us as a committee to seek assistance from various departments in the refinery based on what has been identified through the data. The S.W.O.R.D. process utilizes six key steps in improving the safety of the workforce through its process. In conjunction with these 6 steps, the committee designed a flow chart for the process to follow.
1. **Identify critical behaviors:** The committee worked with safety professionals at the company to identify key behaviors based on our historical injuries. Each of these items identified can be found on our S.W.O.R.D. form sheet.

2. **Educate Observers on critical behaviors:** All employees receive an 8 hour training class on the history, fundamentals, and execution of our BBS process when hired in. Dedicated voluntary observers receive additional training in the field on conducting observations. After the initial 8 hour training class, employees will receive a 2 hour refresher training every other year to bring them up to speed with any changes in the process. If at any time an employee would like additional training the committee can accommodate those needs.

3. **Gather Data from Observations:** All data is collected on either a S.W.O.R.D. form or on Marathon’s computer based system. The data is then compiled, prepared for analysis, and presented to the employees through email, television monitors, or monthly Safety Sequential Meetings.

4. **Provide coaching to those observed:** Voluntary observers receive instruction during training on how to provide coaching and positive feedback to those they observing. They are also given tools on how to properly communicate deficiencies they identify out in the field.

5. **Analyze data collected and identify top at-risks:** The S.W.O.R.D. facilitator and committee analyze the data collected in their monthly meeting. The committee then looks for trends and top at risks to focus on for the upcoming month. Barrier reports are then developed from the data collected and communicated to employees.

6. **Distribute the at risk data and barriers to management and hourly personnel to raise awareness and seek help in mitigating risks:** Once a trend of the top at risks/barriers has been identified. The committee works with the RLT (Refinery Leadership Team) to create a plan that will reduce the at risk behavior(s)/barriers in the field. The professionals in each corresponding department help to drive action plans depending on the identifiable needs. These plans can include engineering projects, toolbox meetings, bulletins, new safety equipment implementation, and awareness.

Below is a flow chart we also use in conjunction with these six steps to ensure the consistency of our process.

A future goal of the process is to utilize the positive data we collect. This data has been identified as a potential area to improve and the committee is looking to do just that. Moving forward, the more raw data that can be communicated to the working employees will provide a stronger value to BBS process.
Procedure for a voluntary observer:
1. Approach person(s) you wish to observe.
2. Ask permission to conduct an observation of their work.
3. Explain that it is a no name, no blame process.
4. Begin conducting observation with approval from those being observed.
5. Fill out description of task being performed, being careful not to give any specifics that could lead back to who you were observing.
6. Begin looking through the observation card and referencing the critical behavior indices.
7. Identify and mark any at risk behaviors as you are observing (making sure to stop and communicate the unsafe act immediately).
8. Once the CBI’s are completed begin describing any at risk behaviors identified.
9. After speaking with the person(s) you have observed, identify why the behavior was being done.
10. Show those person(s) being observed what you have written down.
11. Discuss any identified at risk items with personnel.
12. Provide at least one positive comment about the task before leaving.

13. Give a brief description of what corrective actions were taken at the time of the observation.

14. If you feel there is a need for a S.W.O.R.D. Committee review, designate that in the appropriate box.

15. Fill in the appropriate box that corresponds to the number of personnel observed.

16. If completed on the S.W.O.R.D. paper form, drop off in one of the designated drop boxes.

**ROLES & RESPONSIBILITIES**

**Facilitator**

Full Time Facilitator Definition and Companion to Established ORD Roles and Responsibilities.

- Presents 10 toolbox meetings per month rotating throughout different areas.
- Attends 2 contractor BBS meetings per month and audits contractors programs.
- Maintains SCANTRON System for plant including collecting observation cards weekly.
- Meets weekly with safety supervisor to discuss progress and concerns.
- Coordinates dedicated observers for shutdowns in the plant.
- Implements safety bulletins/faces of safety/action plans from observations.
- Works with Area Team Leaders to improve safety culture for their areas.
- Works with the union to encourage participation of hourly employees.
- Participates in corporate conference calls for BBS facilitators.
- Provides data for SSM Report and KPI Report.
- Purchases S.W.O.R.D. items and safety trial merchandise.
- Coordinates contests and reward programs for observers.

**Committee Members:**

- Conduct at least 3 observations per month.
- BBS process leaders in their respective areas.
- Safety leaders among their peers.
- Encourage participation in the process and seeks out new observers.
- Act as a coach to observers on how to conduct and improve observations.
- Lead toolbox meetings about the BBS process and current initiatives.
- Attends monthly committee meetings and takes on assigned responsibilities.
- Provides feedback to facilitator to improve BBS processes.
Voluntary Observers:

- Conduct quality observations.
- Provide feedback to facilitator and committee on how to improve process.
- Complete two observations per month.

Management:

- Barrier breakers to safety antecedents.
- Provide support and encouragement of the process.
- Guide and assess the BBS process without disrupting the integrity of the process.

<table>
<thead>
<tr>
<th>S.W.O.R.D. COMMITTEE GOALS</th>
<th>FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve contact rate of 1.0</td>
<td>Monthly</td>
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<tr>
<td>Maintain an 80% quality rate</td>
<td>Monthly</td>
</tr>
<tr>
<td>Provide all BBS data for monthly SSM by first Friday</td>
<td>Monthly</td>
</tr>
<tr>
<td>** Include - Action Plan for top &quot;At Risks&quot;</td>
<td>Monthly</td>
</tr>
<tr>
<td>Distribute two reminders per month to volunteers</td>
<td>Monthly</td>
</tr>
<tr>
<td>Meet 1x per month with 85% attendance</td>
<td>Monthly</td>
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<tr>
<td>Maintain monthly meeting minutes and post</td>
<td>Monthly</td>
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<tr>
<td>Attend or Conduct 10 toolbox meetings per month</td>
<td>Monthly</td>
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<tr>
<td>Publish &quot;Faces of Safety&quot; once per month</td>
<td>Monthly</td>
</tr>
<tr>
<td>Integrate nested Contractors into ORD BBS</td>
<td>Monthly</td>
</tr>
<tr>
<td>Implement SCANTRON System</td>
<td>Ongoing Improvements</td>
</tr>
<tr>
<td>Develop &amp; publish a written BBS Program for Canton</td>
<td>In Process</td>
</tr>
<tr>
<td>Develop feedback mechanism for comments written on Observations that require follow-up</td>
<td>In Process</td>
</tr>
<tr>
<td>Develop a plan to implement marketing initiatives to educate and engage employees</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Conduct training for new hires, voluntary observers, union committee, RLT</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Identify tangible actions that ORD leaders (union/mgt) can perform to enable culturalization of BBS into ORD</td>
<td>Ongoing</td>
</tr>
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COMMITTEE BYLAWS

Committee members are required to attend a minimum of 7 meetings per year. (unless circumstance arise that prevent the member from attending: turnaround/illness/leave of absence/plant emergencies/approved by facilitator after discussion).

Committee members will be respectful to one another when in meetings. Arguing points and discussion or disagreement is healthy, but blatant disrespect will not be tolerated.

Each committee member has a single vote on issues that require a majority ruling. The facilitator will take the call for a majority vote and accept the ruling of the majority. In the event of an equal number of votes then the facilitator will make the final decision.

From signing of the BY LAWS committee members will have 2 years of service, minimum.

Committee members are required to complete 3 observations per month minimum.

- Conditions of exemption for 3 observation requirement.
  - 10 Days or more of vacation scheduled in a given month.
  - Illness that prevents member from working normal schedule.
  - Plant emergencies, etc.
  - Turnaround (plant wide or individual unit).
  - Approval from facilitator after discussion.

Committee members will be expected to be good safety role models when performing work in the plant.

Committee members are free to leave the committee whenever they wish. There is no penalty for leaving if you do not feel that it is for you.

Committee members have the right and the ability to override the facilitator’s judgments or actions if a three quarter vote is achieved by committee members.

If a member does not wish to attend a meeting during their week of middnights then they are required to notify the facilitator or time office prior to Wednesday at noon the week prior.

Only good standing members are eligible for trips.

Good standing members are determined by facilitator and committee based upon attendance/participation/role model/and observations.

Maximum members from each area:

- South: 3
- North: 3
- Product Movement: 3
- Utility: 1
- Maintenance: 3
- Salary: 2
- Lab: 1
CAUSAL FACTORS LEADING UP TO BEGINNING OUR BBS PROCESS:

Mid-year 2007, the Behavior Based Safety process was brought back to ORD. In years past, there had been attempts at implementing BBS, but all attempts had failed. In 2007, ORD had 6 OSHA recordable injuries and 54 first aids when they initially implemented the BBS process. At the end of 2007 there were 14 OSHA recordable injuries, 70 first aids, and 1 day away injury. (OSHA Recordable Rate of 1.62)

Originally the program was given to employees as a directive, and there were a minimum number of observations due each month. The program was mandatory and not well received by the hourly workforce. During the first year and a half we found no correlation between “at risks” identified and injuries that occurred.

At the end of 2010 a part time facilitator was elected, and the hourly workforce began to take ownership of the process. Observations were made voluntary, and quality went up.

HISTORY OF CANTON ORD BBS PROCESS

1. Mid 2007 initial BBS process was put into place as a mandatory (1 observation per month) function for each employee.
   a) Training was implemented and then a committee formed to run BBS.
   b) Process was led by a salary safety supervisor as a secondary job duty.
   c) This process was management owned and operated.
   d) Around 140 observations per month approximately 50% of those were poor quality.
   e) BBS remained in this format with these results until 2010.

2. October of 2010 BBS process went under a transformation from management owned and led to being a process partially led by hourly employees.
   a) Observations were no longer mandatory.
   b) Hourly employees started to gain more responsibility in the decision making.
   c) A part time hourly facilitator was elected and granted 1 week per month to develop the process.
   d) Observations dropped to roughly 90 per month but quality within those observations increased dramatically.
   e) BBS remained in this state for 1 year.

3. September of 2011 BBS was now owned and operated by the hourly workforce.
   a) A full time facilitator was put on to oversee the BBS process.
   b) A strong committee was put into place to lead the process.
   c) Began to analyze contact rate among observations.
   d) Continued to acquire new hourly observers.
e) Developed a structured marketing plan.

f) Developed a formalized training process.

g) Integrated contractors into the BBS process (December 2011).

h) Developed action plans from trends and flagged observations.

4. In 2012 our process received accreditation from Cambridge
   a) The Cambridge site visit provided our process with a direct path forward and a means to improve.

5. 2012- Current
   a) A new full time facilitator was elected by our committee into our process in 2015.
   b) The process continues to improve on process data and data trending.
   c) More resources and support from management has continued to provide our process with the proper tools to succeed.
   d) Injury rates have decreased significantly since implementation. In 2015 the ORD experienced 3 OSHA Recordables, 1 Lost Time and 44 First Aid cases. (OSHA Recordable Rate of 0.45)

SEE Exhibit G for a quick graph of our process data

CONTRACTOR INTEGRATION

Beginning in December 2011, ORD began integrating our nested contractors into our S.W.O.R.D. BBS process. All dedicated observer contractors go through the same training as Marathon employees and complete their observations on the written S.W.O.R.D. forms. ORD respects and supports contractors that have their own separate processes, but encourages participation in our S.W.O.R.D. process as well. Currently, the process is still working with contractors and they are actively participating in our process as well as working in their own.

Training of Contractors

Contractor safety leaders take volunteers and schedule them for training. Once training is completed observers receive their observer card (see exhibit F) and are asked to complete two observations per month.

Contractor Feedback and Engagement

Once a week, the BBS Facilitator and contractor safety leaders meet for one hour to discuss data collected, concerns, and ideas to improve upon the process. Concerns or suggestions raised during the meeting are taken back to the S.W.O.R.D. Committee and reviewed. Contractor safety leaders also meet twice a year with the entire S.W.O.R.D. Committee to discuss goals, top “at risk” behaviors, and any other concerns or questions are addressed.
QUALITY SCORING OF OBSERVATIONS

The S.W.O.R.D. Committee reviews 20% of all observations once per month. The evaluation is then scored to determine the percentage of great, good, and poor quality observations received for the month, per the defined criteria. The established goal is for 90% or greater to be in the great category, and the remaining observations to be in the good or poor quality categories.

Great observations are defined as giving a detailed description of the work and area where a worthwhile task was observed. Great observations have all applicable check boxes filled in, and have a description of at risks if identified. They also have a description of the feedback given to those they observed at the end of the observation.

Good observations are defined as having a worthwhile task observed, but lacking in the areas of description or applicable check boxes. Good observations are identified as having room for improvement and need for coaching.

Poor observations are defined as lacking description, filled out check boxes, and no feedback. (Note: Poor observations have dropped from an average of 50% to 5% since going from mandatory to voluntary). Coaching is then done to help improve future performance.

BBS OBSERVATION SCORECARD

<table>
<thead>
<tr>
<th>Observation # No Number if in SCANTRON</th>
<th>Date</th>
<th>Was the task substantial?</th>
<th>Was there a good description of task?</th>
<th>Were check boxes filled out in correlation of task?</th>
<th>If there was at risk, was it described?</th>
<th>Reason given for at risk?</th>
<th>Feedback given?</th>
<th>Score</th>
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Add all the checked boxes together to determine the observation quality. Score of 4 and above equals great observation. Score of 3 equals good observation. Score of 2 or less equals poor observation.
S.W.O.R.D. BBS OBSERVER AND EMPLOYEE TRAINING

Initial 8 hour training: Each hourly MPC employee at ORD is given an initial, 8 hour training on our BBS process, background, and fundamentals. This required training is typically conducted by either the facilitator or the co-facilitator. Training is broken down into two sections, in class and field training. At the end of the course each employee is expected to be able to conduct a S.W.O.R.D. observation and provide feedback to those whom they observe. This also lets employees know that they will be asked to be observed out in the field.

1 hour dedicated observer training: MPC employees who wish to become dedicated volunteer observers are offered a 1 hour focused training course on specific techniques of conducting observations. The 1 hour course is optional to the employee if they wish to refresh and better understand the process. The optional course was created to allow employees to have a S.W.O.R.D. committee member answer any questions or concerns.

Hourly employees received a 2 hour course in 2015. The purpose of the training was to ensure that the work force was up to date on each part of the process. During the training we asked leadership to help encourage and champion our committee and dedicated observers.

BBS PROCESS DURING SHUTDOWNS AND MAJOR PROJECT WORK

During a unit shutdown, major plant shutdown, or major project work, dedicated observers are selected and assigned specific areas to conduct observations. Each observer is dedicated to conducting observations for the purpose of identifying potential trends with an increased amount of activity and workforce in the plant. The main focus is on the mechanical phase of the shutdown/project.

Each dedicated observer is agreed upon by both the committee and the leadership team. When possible, the first choice for a dedicated observer is a committee member. If no committee member is available, then a regular voluntary observer is chosen. In the event that neither a committee member nor a voluntary observer is available, a mutually agreed upon individual will be chosen and receive a four hour class on proper observation techniques.

Dedicated observers are placed on shift and given a target number of observations to complete for each shift worked. The data is then calculated daily by the facilitator and placed into a report that is used to relay information to the workforce prior to the start of the next shift. Trends that are identified during dedicated observer rounds are assigned action plans, which are to be implemented immediately. Daily meetings are held prior to the beginning of the shift, and then again halfway through the shift to discuss hazards identified, at risk behaviors observed, and concerns needing addressed.

Marathon Petroleum has recently developed a refinery wide turnaround safety draft document that encourages and defines the need for dedicated observers during a shutdown and or turnaround. This standardized document is being utilized in turnaround planning at each refinery in the Marathon system.
NON SAFETY RELATED INITIATIVES

Refinery Guiding Principles

The ORD has adopted the following guiding principles:

* We will not compromise safety.
* We will operate in a manner that protects the environment.
* We will be accountable for our actions and decisions.
* We will be proactive, efficient and continuously improve.
* We will take pride and ownership in our work and our workplace.

Health and Wellness Committee

A Health and Wellness Committee comprised of hourly and salary personnel has been assembled since the last accreditation. The committee aims to involve MPC personnel in activities that promote a healthy mind and body. This committee organizes and executes activities for wellness such as 5K runs, bike rides, and hikes. Since the last accreditation they have sponsored a fitness facility on plant grounds for all employees to access and use.

Activities Association

The Activities Association has been formed to organize and coordinate events and activities for the employees of Marathon Petroleum’s Ohio Refining Division. Their objective is to encourage camaraderie and interactions for all employees and their families through social events outside of working hours.

Diversity Committee

The Diversity Committee was formed to champion diversity efforts in hopes of moving all ORD employees up the Inclusion Continuum. The committee focuses on education and discussion activities to identify and explore barriers to diversity and inclusion. Their goal is to promote these values and foster an inclusive work environment.
GRAPHICAL DISPLAYS OF DATA

A. Contact Rate trending began in January 2012 with the implementation of the S.W.O.R.D. form, and a modification in our TIPPS system. Both observation methods were equipped with a way to track the number of workers observed. The ORD calculates its contact rate by dividing the number of people observed each month, by the total number of workers in the plant.

B. From January 2012, the number of voluntary observations has continuously trended upwards. This is in direct correlation with the development, success, and the stability of the BBS process. The large peaks that occur in this graph are turnaround related.
C. **Observations by Area** - As mentioned early, ORD is divided into areas within the refinery. This graph denotes the participation by area, which the committee uses to track involvement throughout the refinery. Participation is something that is a focal point for us to gain a broad scope of data within each specialized craft at ORD.
EXHIBIT A – S.W.O.R.D LOGO

[Image of S.W.O.R.D LOGO]
EXHIBIT B – BBS COMMITTEE
EXHIBIT D – MONTHLY DATA REPORT

S.W.O.R.D. MONTHLY BBS REPORT 01-2016

The top hazards for the month of January is walking working surfaces. Weather conditions, as well as house keeping, are contributors to walking working surfaces at risks. Housekeeping includes hoses, cords, and cables left lying around. Eye and Face protection at risks are attributed to Safety Awareness, workers not being aware of having proper eye protection on while performing tasks. We have had safety glasses, face shields, and eye wear fogging up. Barriers have been rushing and wearing wrong eye protection for the job. Poor lighting and steam issues have also contributed to lighting and visibility at risks. Our participation efforts are very close to goal but could use some improvement. This is the first time in 9 months that the NA have not met there target but contributions are significant. There were 3,087 CBI’s observed during 219 observations for 98% safe. Let’s strive together for 100% SAFE! 1 TEAM 1 GOAL.
Trend by category

EXHIBIT E – CRITICAL BEHAVIOR INVENTORY DEFINITIONS
A Review of How to Conduct a S.A.F.E. Observation
From BBS Committee review of observations in the BBS System
## EXHIBIT E – CRITICAL BEHAVIOR INVENTORY DEFINITIONS

<table>
<thead>
<tr>
<th>Category</th>
<th>TIPS:</th>
<th>Example:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Confined Space</strong></td>
<td>Permit in order? &lt;br&gt; Outside attendant trained? &lt;br&gt; Communications adequate? &lt;br&gt; - Monitoring adequate?</td>
<td></td>
</tr>
<tr>
<td><strong>Energy Isolation</strong></td>
<td>LOTO in place? &lt;br&gt; De-energization verified?</td>
<td></td>
</tr>
<tr>
<td><strong>Hot Work</strong></td>
<td>Permit in order? &lt;br&gt; Fire Watch trained? &lt;br&gt; Fire suppression in place?</td>
<td>If working in elevated area: is spark/ slag catch in place to prevent falling debris?</td>
</tr>
<tr>
<td><strong>Safe Work Permit</strong></td>
<td>Does worker have a permit for work being done? &lt;br&gt; Worker signed in to work area? &lt;br&gt; Compliant with permit requirements (PPE? Barricades? Warning signs?)?</td>
<td></td>
</tr>
<tr>
<td><strong>Ascending/Descending</strong></td>
<td>Are 3 points of contact used on stairs, ladders, etc.? &lt;br&gt; Are handrails used on stairways? &lt;br&gt; Is there a clear path of access? &lt;br&gt; Is the safest means of access used?</td>
<td>In cold conditions: are stairways/ ladders and access ways clear of ice or probable ice conditions (i.e. water or steam)?</td>
</tr>
<tr>
<td><strong>Assistance</strong></td>
<td>Is help acquired for lifting a heavy load? (either other personnel or mechanical means) &lt;br&gt; If a ladder is used for access is someone available to secure it (if not tied off)? &lt;br&gt; Is another employee needed as a spotter (another set of eyes)? Or assistance with moving equipment by hand?</td>
<td>Consider the movements while working: are they short and jerky or are they long and calm? &lt;br&gt; While lifting/moving materials: is it feasible to use assistance? &lt;br&gt; If bending over for long periods: could a chair be used?</td>
</tr>
<tr>
<td><strong>Body Mechanics</strong></td>
<td>Is the lift made with proper body position (back straight, bending at knees)? &lt;br&gt; Is the person over-extended or awkward angle/twisting?</td>
<td></td>
</tr>
<tr>
<td><strong>Eyes on Task/Work</strong></td>
<td>Is the person watching attentively at the location where the task is performed?</td>
<td>If not looking in direction of task: is there something keeping eyes from that direction (i.e. hanging object, steam valve, any obstacle)?</td>
</tr>
<tr>
<td><strong>Line of Fire/Pinch Points</strong></td>
<td>Is the person working in a position to avoid a potential release of energy (steam traps, electrical equipment, bull plugs, flanges, valve stems)?</td>
<td>If standing in line of fire: is area identified for particular hazard by warning signs or equivalent effectiveness? &lt;br&gt; If setting up to grind metal: are sparks flying towards people or combustible materials?</td>
</tr>
<tr>
<td><strong>Body Protection</strong></td>
<td>Is Fire Retardant clothing worn in required areas?</td>
<td>If chemicals / corrosives present in area: Is chemical PPE worn?</td>
</tr>
</tbody>
</table>
## EXHIBIT E – CRITICAL BEHAVIOR INVENTORY DEFINITIONS

<table>
<thead>
<tr>
<th>Category</th>
<th>TIP:</th>
<th>On windy day: is dust flying around in air?</th>
<th>Can it be suppressed?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye/Face Protection</strong></td>
<td>Is a face shield worn when grinding or assisting with grinding?</td>
<td></td>
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<tr>
<td></td>
<td>Are foam-backed safety glasses worn in PPE required areas? Or goggles worn over standard glasses?</td>
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<tr>
<td></td>
<td>Is a face shield or goggles worn when required for getting a sample?</td>
<td></td>
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<tr>
<td></td>
<td><strong>TIP:</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Fall Protection</strong></td>
<td>Is the person working above 4 ft.? If so, are they protected within standard rails or a personal fall arrest system?</td>
<td>If wearing personal fall arrest system: is it set up so that if fall happened, would not allow employee to hit a lower working platform?</td>
<td>Or free fall more than 6 feet?</td>
</tr>
<tr>
<td></td>
<td>Is the hierarchy of fall protection in use?</td>
<td></td>
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<tr>
<td></td>
<td>Eliminate the need to work at a height</td>
<td></td>
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<tr>
<td></td>
<td>Work within standard railed platforms</td>
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<tr>
<td></td>
<td>Use a manlift for access</td>
<td></td>
<td></td>
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<td></td>
<td>Is the harness worn correctly and lanyard connected properly?</td>
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<tr>
<td></td>
<td>Is the anchor point sufficient?</td>
<td></td>
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<tr>
<td></td>
<td><strong>TIP:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hands/Arms Protection</strong></td>
<td>Proper gloves for task being performed?</td>
<td>Do gloves and sleeves fit so that there are no gaps that show skin?</td>
<td></td>
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<tr>
<td></td>
<td>Sleeves down?</td>
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<tr>
<td></td>
<td>Gloves in good condition? (No holes?)</td>
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<tr>
<td></td>
<td><strong>TIP:</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Hearing Protection</strong></td>
<td>Hearing protection being used in regulated area?</td>
<td></td>
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<tr>
<td></td>
<td>Hearing protection being used in unregulated area for task being performed?</td>
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</tr>
<tr>
<td><strong>Personal Monitoring Device/Respiratory Protection</strong></td>
<td>Monitor in place within 10” of breathing zone?</td>
<td>Monitor on exterior of clothing?</td>
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<td></td>
<td>Daily bump test performed?</td>
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<tr>
<td></td>
<td>Proper protection being worn per safe work permits requirements?</td>
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<td></td>
<td>Proper cartridges being used for potential exposure?</td>
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<td></td>
<td>Clean shaven?</td>
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<td></td>
<td>For fresh air work, is escape bottle fully charged?</td>
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<td></td>
<td>Is back-up person there and in proper PPE?</td>
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<tr>
<td></td>
<td>Is the back up doing his job, mask and bottle ready to go?</td>
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<tr>
<td><strong>Barricades/Warning Signs</strong></td>
<td>Does the work activity, or any activity in the area need a barricade to warn or exclude personnel?</td>
<td>If signage present: is signage visible?</td>
<td></td>
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<tr>
<td></td>
<td>Crane lift, manlift in use, opening equipment, overhead work, removed decking on a platform, etc.</td>
<td>Legible?</td>
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<tr>
<td></td>
<td>Are warning signs needed in the area? To warn personnel of contaminants, excavations, confined spaces, unprotected edges?</td>
<td>Have a clear meaning?</td>
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<tr>
<td></td>
<td><strong>TIP:</strong></td>
<td>Do employees notice the sign? And act accordingly?</td>
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<tr>
<td>EXHIBIT E – CRITICAL BEHAVIOR INVENTORY DEFINITIONS</td>
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<td>---------------------------------------------------</td>
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<tr>
<td><strong>Housekeeping</strong></td>
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<tr>
<td><strong>TIP:</strong></td>
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<tr>
<td>Is the work area clear of debris, parts, tools,</td>
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<td>etc.?</td>
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<td>If at end of shift: are employees cleaning up</td>
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<tr>
<td>their worksite?</td>
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<td>Are combustibles present?</td>
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<td>Chemicals on ground?</td>
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<tr>
<td><strong>Lighting/Visibility</strong></td>
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<tr>
<td><strong>TIP:</strong></td>
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<tr>
<td>Is the work area clearly lit? Is visibility good</td>
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<td>– no steam leaks creating vision obstruction? Is</td>
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<td>a walking or driving path obstructed by equipment?</td>
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<td>If lighting is dim: are warning signs/labels</td>
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<td>visible and legible?</td>
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<tr>
<td><strong>Walking/Working Surfaces</strong></td>
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<td><strong>TIP:</strong></td>
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<tr>
<td>Are the areas of work and walking/access paths of</td>
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<td>travel clear? Are any possible slip/trip/fall</td>
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<tr>
<td>hazards present? Tools, debris, parts, loose</td>
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<td>gravel, ice, algae growth, etc.</td>
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<td>If cold weather with ice produced: are surfaces</td>
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<td>with ice barricaded so that employees cannot</td>
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<td>walk/work on that surface?</td>
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<td>Are elevated walking surfaces (i.e. steps, curbs,</td>
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<td>etc…) outlined/highlighted, for visibility?</td>
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<td><strong>Selection of Proper Tools</strong></td>
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<td>Are tools being used proper for job task?</td>
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<tr>
<td><strong>Vehicles/Selection/Use</strong></td>
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<tr>
<td>Are safety belts being used?</td>
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<tr>
<td>Do all lights and indicators work properly?</td>
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</tbody>
</table>
EXHIBIT F – SWORD OBSERVER CARD