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Operations	John Colvin	Paul Zawila	SR-24	
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1.0 INTRODUCTION

1.1 Purpose

This procedure provides information regarding exclusion of non-essential personnel from operating units during start-up, shutdown, or other potentially hazardous operating conditions.

1.2 Scope

This procedure covers all personnel working within the Anacortes Refinery. This procedure applies to process areas, and Anacortes Refinery employees and contractors. This procedure does not cover emergency response activities.

2.0 REFERENCES

2.1 Marathon Standards, Policies & Procedures

- PSM-018 Exclusion Zones (this is a legacy Anacortes Standard. Currently Marathon does not have an Exclusion Zone Standard)

3.0 DEFINITIONS

The following definitions are applicable to this procedure.

Table 1 Acronyms

Term	Description
Adjacent Unit	A unit which is encompassed by or adjacent to the Exclusion Zone.
Critical Maintenance Work	Work that is integral to safely managing the unit shutdown, start-up or upset. This work would normally be authorized for callout or overtime on a running unit. Activity on an adjacent unit encompassed by the Exclusion Zone is not considered critical unless it meets the definition of critical maintenance work.
Essential Personnel	Personnel who are performing, managing, providing oversight, or being trained on critical maintenance work. Operational personnel assigned to the unit, managing, providing oversight, or being trained on the unit.
Exclusion Zones	An area established where only essential personnel are allowed during unit start-up, shutdowns, upsets, or other potentially hazardous operations as determined by Operations Supervision.
Operator Working Under the Direction and Control of a Qualified Operator	The non-qualified Operator is required to have received process overview training for the area that includes an overview of the hazards and chemicals involved, personal protective equipment required, emergency response actions, and evacuation locations. Operators not qualified on a unit may help Qualified Operators as long as they are directly supervised by the Qualified Operator. This requires that the Qualified Operator can visually direct and see the actions of the non-qualified Operator.
Shall	Denotes a minimum requirement in order to conform to the intent of the standard.

Table 1 Acronyms

Term	Description
Should	Denotes a recommendation which is advised but not required in order to conform to the standard.
Shutdown	A unit shutdown can be defined as the phase of operation when the unit is ready to begin removing feed, reducing temperature and pressure. This can be a planned or unplanned event.
Start-Up	A unit start-up can be defined as the phase of operation when hazardous feed, including flammable(s) and toxic(s) materials, are introduced into the process unit and changes in temperature or pressure are going to begin.
Unit	A system of equipment and piping as determined by operations. The unit size or complexity is not the only factor when an Exclusion Zone is being considered; hazards, processes, chemicals also could factor in to the decision.
Upset	An upset can be defined as a phase of operation where process or mechanical issues cause operations to be unstable, create an increased risk of loss of primary containment, or may result in the need for a unit shutdown.

4.0 EXCLUSION ZONES

An area established where only essential personnel are allowed during unit startup, shutdowns, upsets or during other potentially hazardous operations as determined by Operations Supervision.

4.1 When Establishing an Exclusion Zone

Must include the process unit undergoing start-up, shutdown, or securing of other potentially hazardous operations, such as the following:

- Boundaries should generally be defined as unit battery limits plus additional distances determined to be necessary following a risk evaluation by Operations.
- The Exclusion Zone should include the process unit involved and may include adjacent units depending upon the risk evaluation by Operations.
- Access shall be limited to essential personnel necessary to perform work.
- Access for non-essential personnel must be approved by Operations Supervision of the affected area.
- The Exclusion Zone boundaries should apply to buildings and other structures.
- Consider blocking roads leading into the Exclusion Zone.

Establishing a smaller Exclusion Zone within a unit may also be considered for other potentially hazardous operating conditions, such as:

- Events resulting in loss of primary containment of flammable or toxic materials.
- Cleaning of process equipment containing flammable or toxic materials.
- Start-up or shutdown of major pieces of equipment.

A decision to establish Exclusion Zones for conditions other than unit start-ups, shutdowns, or upsets, should consider the following factors:

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- Historical performance of the unit and/or equipment involved as it relates to loss of containment.
- Temperature and pressure of the process.
- Flammability or toxicity of the material involved.

5.0 ESSENTIAL PERSONNEL

The following Operations personnel may be considered essential as the term relates to this procedure:

- Qualified Unit Operators
- Operations Supervisors
- Operations Superintendents
- Operations Manager

Operators not qualified on the unit involved may be considered essential personnel if:

- Training on the unit or specific task within the unit while being mentored by the Qualified Unit Operator.
- Performing specific tasks under the direction and control of the Qualified Unit Operator.
- Their presence in the Exclusion Zone does not inhibit the response to an upset or emergency condition on their assigned unit.
- Qualified on other jobs within the Exclusion Zone.

Other personnel performing essential work critical to the shutdown, start-up, upset may be considered essential personnel.

- Maintenance, inspection or contractor personnel performing, managing, providing oversight or being trained on critical maintenance work will either be pre-authorized by operations or specifically requested by operations; and then they become essential personnel.

NOTES: Non-essential personnel should not enter or request to enter an Exclusion Zone unless requested by Operations Supervision.

All personnel are responsible for understanding this procedure, and for keeping themselves informed of the Anacortes Refinery's Point of Interest (POI) communication method.

5.1 When Determining Essential Personnel

Operations Supervision responsible for the unit, determine any additional essential personnel needed during unit start-up, shutdown, or securing of other hazardous operations.

Operations Supervision responsible for the unit, determine the timing and duration of the Exclusion Zone.

While minimizing personnel exposure to the hazardous operations, Operation Supervision, will determine the number of essential personnel needed to perform in a

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safe manner the start-up, shutdown, or securing of other hazardous operations, while taking the following into consideration:

- Neighboring or adjoining unit surveillance is not compromised.
- Emergency response is not compromised.
- Supervisory communication channels are not compromised.

6.0 COMMUNICATIONS / NOTIFICATIONS

6.1 Planned Event

Operations Supervision is responsible for the unit and to ensure proper notification to all Anacortes Refinery personnel prior to the event. Notification shall be accomplished via a refinery-wide Point of Interest (POI) communication.

6.2 Unplanned Event

Operations Supervision is responsible for the unit, and for ensuring proper notification to all Anacortes Refinery personnel at the start of the event. Initial communication will take place by radio, phone or evacuation horn if deemed necessary (see R-50-005). Further communication for extended duration unplanned events will take place via a refinery-wide POI of the shutdown, start-up or other potentially hazardous operations of the unit; and as soon as practical after initial actions to secure and stabilize the unit are complete.

At the time of the unplanned event all personnel will check in with the Operations Supervisor prior to entering the unit.

6.3 Communication Protocol for a Planned or Unplanned Event

The refinery-wide POI communication will include:

- Additional work groups that will be considered essential personnel.
- Who the Operations responsible person is.
- The estimated timing/duration of the Exclusion Zone (see Table 2).
- Post the POI on bulletin boards with map.

While the primary method of communication shall be a refinery-wide POI communication, signage will be posted at alleyways and roadways in appropriate locations. In addition, Security will notify vendors and contractors entering the Main Gate of any area currently designated as an Exclusion Zone.

Table 2 Exclusion Zone Timing & Duration

Initiation & Removal	Start-up	Shutdown
<p>When should Exclusion Zones be Initiated?</p>	<p><u>Planned Event:</u> During planned events, an Exclusion Zone should be initiated when potentially hazardous feed, including flammable(s) and toxic(s) materials, are introduced into the process unit and changes in temperature or pressure are going to begin.</p> <p><u>Unplanned Event:</u> In the case of an unplanned event, an Exclusion Zone should be initiated just prior to when the unit begins start-up activities.</p>	<p><u>Planned Event:</u> An Exclusion Zone should be initiated just prior to removing feed from a unit.</p> <p><u>Unplanned Event:</u> Operations Supervisor will initiate an Exclusion Zone using the radio or evacuation horn at the start of unstable operation. If the condition continues, a formal Exclusion Zone should be initiated as soon as practical.</p>
<p>When can Exclusion Zones be lifted/removed?</p>	<p><u>Planned & Unplanned Event:</u> An Exclusion Zone can be lifted when all major equipment (Ex: columns, vessels, exchangers, compressors) reaches normal level, temperature, pressure, and stable feed rate.</p>	<p><u>Planned Event:</u> An Exclusion Zone can be lifted when the high risk activities for securing the unit are completed. Examples: the unit has been de-pressured, or process temperature is well below the typical operating conditions.</p>

7.0 REVIEW AND REVISION HISTORY

Revision #	Preparer	Date	Description
0	Mark Willand	7/25/2021	Reformatted and Numbered per Document Control Policy, R-63-001.