

## BP-Husky Refinery – Toledo, OH

<b>Document Type:</b> Procedure	<b>Area:</b> <b>Refinery Wide</b>	<b>Procedure No.:</b> SAF 052
<b>Effective Date:</b> 12/19/2014	Winter Weather Hazards	<b>Rev. No.:</b> 5
<b>Owner:</b> Matthew T. Grimes	<b>Auth. By:</b> D. C. Durnwald (signature on file)	<b>Page</b> 1 of 6

<b>SCOPE</b>	<p>Reduce risks of winter weather accidents through increased vigilance and preventative actions.</p> <p>This document will help guide supervisors who manage jobs that involve work during the winter months or in cold environments.</p>
<b>HEALTH</b>  <b>Special PPE &amp; Special Hazards</b>	<p>Several cold stress disorders can result if the body core temperature falls below 96.8°F. Normal body core temperature is 98.6°F.</p> <p>Slips, trips and falls Vehicle driving</p>
<b>SAFETY</b>	<p>Mental and physical performance can be altered as a result of cold stress which could lead to an injury or an accident. Environmental conditions may change resulting in ice and slippery surfaces.</p>
<b>REFERENCE DOCUMENTS</b>	<ul style="list-style-type: none"> <li>• ACGIH TLV Handbook, 2011.</li> <li>• OSHA Document 3156, 1998</li> <li>• CDC Extreme Cold Prevention Guide</li> <li>• National Weather Service Wind Chill Chart</li> <li>• SAF 082 - Vehicles Safety Policy</li> <li>• SAF 052-RF01 Cold Stress Management Guideline</li> <li>• OPNS 015 Draining of Process Equipment and/or Lines</li> </ul>
<b>SPECIAL MATERIALS &amp; EQUIPMENT</b>	N/A
<b>QUALITY</b>	Improved health and productivity will result in workers protected from extreme environmental conditions.
<b>ENVIRONMENTAL</b>	Cold ambient air temperatures, wind speed, and moisture are environmental factors to be considered for cold stress.

## OVERVIEW

Winter brings with it the inclement weather conditions which create some abnormal operating and outdoor work problems. The normal movements of people and vehicles are made more hazardous by the presence of ice, snow and fog. Sub-freezing temperatures have an adverse effect on both people and equipment. Hazards which are normally visible are often hidden by fog clouds created by steam and hot water. Winter also brings longer nights, making it more difficult to see many weather-induced hazards.

It is not feasible to prevent or control all weather-induced hazards. It is possible, however, to reduce accident risks through increased vigilance and certain preventative actions.

### 1.0 Equipment and Vehicle Cold Weather Precautions

1. **Caution** must be used to avoid slipping and falling when walking in areas with snow and ice. Securely grasp handrails to go slowly up and down stairways and ladders.
2. Snow and ice on walkways poses a slip and fall hazards.
  - Salt barrels are provided for walkways throughout the plant. Use this salt to spread over walkways where ice and snow is present to prevent slips and falls.
  - Crews may be provided to shovel walkways in the event of snowfall. Additionally, snow shovels are provided to employees to assist with snow removal.
3. Snow and ice on roadways also poses a slipping/stopping hazards. Snow removal crews may be provided to remove snow and to salt the roadway at the Refinery. To assist with safe removal of snow from Refinery roads:
  - Excavations on roadways shall be adequately identified and barricaded.
  - Hoses, pipes and any other temporary obstructions that cross Refinery roadways shall be provided protecting coverings/ramps to protect them from vehicle traffic. To protect them from damage from snow plows they should also be identified with high visibility flags, cones or barrels and their locations should be communicated to snow removal crews prior to plowing of the snow.
4. Icicles pose the potential to cause damage to equipment due to increased weight of the ice and damage when the icicles fall. When icicles fall they pose a dropped object hazard for employees. When identified as a hazard icicles should be removed, typically by Operations, before they fall onto people or equipment in the following manner:
  - Barricade the area to identify the hazard.
  - If steam is available, wear a face shield that is rated for impact and use a steam hose to remove icicles working from the bottom up to avoid dropping whole icicles at once.
  - If ice/icicle formation is a reoccurring issue, enter a Work Order to have the source of the water, typically a steam or water leak, repaired. Take pictures of the location of the icicles to assist in identification.
5. Steam hose flows should be kept just low enough to prevent freezing and left where condensing vapor will not form ice on walkways and icicles on

- structures.
6. If a drain valve is found to be plugged due to frozen material, refer to OPNS 015 Draining of Process Equipment and/or Lines, for unplugging methods.
  7. Water should be kept from freezing in confined spaces because it can exert tremendous pressure on the space.
  8. Slippery road surfaces greatly increase safe stopping distances.
  9. Slow down to a “crawl” to turn corners on ice or packed snow.
  10. The hazard of carbon monoxide increases in cold weather. Windows should be opened enough to permit air circulation.
  11. If it is necessary to drive through steam clouds, slow down, turn headlights on and sound your horn.

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NOTE: Vehicles may only be left running in accordance with SAF-082 Vehicle Safety Policy.

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2.0 Personal Cold Weather Precautions

1. See SAF 052-RF01 Cold Stress Management Guidelines for guidelines to manage cold temperature exposures.
2. **Caution** must be used to avoid slipping and falling hazards created by snow and ice. As a result of thawing and refreezing, a pathway that is safe by day may be iced at night. Grasp handrails to go slowly up and down slippery stairways. Check ladder rungs and side rails for ice or snow while climbing or descending. In crossing snow covered areas, beware of tripping or slipping hazards. Spread salt to melt ice on walking surfaces.
3. Fog/vapor created by steam could create visibility hazards during cold weather. These hazards can be related to workers ability to see hazards covered by the fog clouds (i.e. slippery and uneven walking surfaces, leaking equipment, burn hazards, oncoming traffic etc.) Wherever possible, detour around these clouds.

3.0 Severe Winter Weather

1. Due to the nature of operations of the refinery all essential BP-Husky personnel should attempt to report to work if they are able to safely do so. Law enforcement officials in Ohio will not issue a ticket or arrest an individual en route to work as instructed. The law enforcement official may verify that the refinery is open for operations. Essential employees must be able to provide adequate identification to area law enforcement, such as a driver's license and company identification. Additional questions from law enforcement should be referred to your team leader.

Essential Personnel at the Toledo Refinery are:

- a. Shift Minimum Staffing – Defined as:
  - i. Refinery Coordinator, Shift Supervisor, all Hourly Operators scheduled to work (i.e. Refinery staffing on non-daytime hours or weekends.)
- b. ERT members (if activated)
- c. Security Personnel

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NOTE: Salary and Hourly essential roles (not included above under Shift Min Staffing) - to be determined by supervision prior to the event.

Each contractor company will decide for themselves if their company will report to work during a Level 3 Snow Emergency. Their BP-Husky CAM needs to be notified if a contract employee will not report based on Level 3 Snow Emergency conditions.

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2. While it is recognized that the refinery will operate continuously, it is also recognized that there are snow emergencies which may necessitate closing all or part of a regular working day for non-essential personnel.
3. In the event of severe winter weather conditions during normal working hours, snow emergency classifications for Lucas County shall be adhered to. Lucas County has 3 defined Snow Emergency Levels:
  - a. A Level I Snow Emergency is for all roads and streets in Lucas County, including state, county, and township roads, and all city streets. This means that roadways are hazardous with blowing and drifting snow. Roads may also be icy. Motorists are urged to drive very cautiously.
    - i. All scheduled refinery employees should report as normal.*
  - b. A Level II Snow Emergency is for all roads and streets in Lucas County, including state, county and township roads, and all city streets. This means that roadways are hazardous with blowing and drifting snow. Roads may also be very icy. Only those who feel it is necessary to drive should be out on the roads. Motorists should use extreme caution.
    - i. All essential personnel must report as scheduled. All scheduled, non-essential personnel are expected to report to work as normal. If individual circumstances arise that would hinder your ability to report, contact your immediate Supervisor for clarification.*
  - c. A Level III Snow Emergency is for all roads and streets in Lucas County, including state, county and township roads and all city streets. This declaration does not apply to traffic on the Ohio Turnpike, but does apply to all other roads and streets in Lucas County. This means that all roadways are closed to non-emergency personnel. No one should be driving during these conditions unless it is absolutely necessary to travel or a personal emergency exists. Those traveling on the roads may subject themselves to arrest.
    - i. All essential personnel must report as scheduled or upon request. Should any fines and/or traffic violations occur due to severe winter weather the Company will review each case on an individual basis and determine if the employee will be reimbursed. Non-essential personnel are not expected to*

*report to work, and therefore, any fines and/or tickets received due to severe winter weather are the responsibility of the individual.*

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NOTE: Employees should exercise judgment when severe winter weather impacts the NW Ohio/SE Michigan area. An employee if in doubt should attempt to contact their supervisor to determine if they should report to work. If an employee does not come to work when normally scheduled, due to severe winter weather, the situation will be taken into account in determining what action is appropriate.

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4. The Emergency Response Team (partially or entirely) should be activated in the event of a Level III Snow Emergency. This is done because of the long response times and dangerous roads to travel in the event of an emergency. ERT staffing for an emergency may require ERT members to remain on standby at the refinery. (The above will be coordinated by the Security & Crisis Manager)
  - a. The current Fatigue Guidelines do not apply for seeking approval beyond 16 hours and it may require ERT members who are activated to stand-by for emergencies to sleep and eat at the refinery to be prepared to respond until the conditions have improved.

**\*If stopped in transit, Essential Personnel should show their BP Identification badge and inform the officer that they are a BP essential employee of the refinery.**

**\*\*If the county you live in is under a Level III Snow Emergency during your scheduled work hours, see notes in Section #5 below. You may also contact your immediate Supervisor for information.**

**\*\*\*These are general guidelines to be followed during severe winter weather. Individual cases or concerns should be addressed with your immediate Supervisor for further clarification.**

5. **In the event of a Level III Snow Emergency:**
  - a. For Hourly employees who do not make it into work due to Severe Winter Weather, time cards should reflect: Company Action, No Pay. Please note employees have the option of using vacation in lieu of Company Action, No Pay.
  - b. For Salary Non-Exempt employees who do not make it into work due to Severe Winter Weather, time cards should reflect: Company Action, No Pay. However, these employees may be provided the option to work from home (with pay) with supervisor approval. Please note employees have the option of using vacation in lieu of Company Action, No Pay.
  - c. For salary exempt employees who do not make it into work due to severe winter weather, you are expected to work from home and remain accessible to business needs associated with your role.
  - d. Absences due to Severe Winter Weather will not count against the attendance program, attendance bonus and Annual Cash Bonus

- (ACB) eligibility.
- e. The current Fatigue Guidelines do not apply for seeking approval beyond 16 hours.
- f. As necessary, BP will communicate via the local media outlets regarding work schedule updates; otherwise, be sure to contact your supervisor for information.

**Revision history**

The following information documents at least the last 3 changes to this document, with all the changes listed for the last 6 months.

Date	Revised By	Changes
11/29/2012	<b>Matthew T. Grimes</b>	Revised Header. Updated Scope, Health, Safety, etc. section to include information for Cold Stress Management Guideline Reference document. Added reference to OPNS 015 for unplugging methods for frozen materials. Added reference into procedure and added reference document SAF-052-RF01 Cold Stress Management Guideline. MOC# M20126162-001
9/19/2013	<b>M. Grimes &amp; T. Flippin</b>	Added section 3.0 Severe Winter Weather: Defined the 3 levels of snow emergencies, essential and non-essential personnel, ERT guidelines, pay requirements, fatigue guidelines and communication outlets. MOC# M2014102-001
11/25/2014	<b>Matthew T. Grimes</b>	Added information about snow, ice and icicle removal processes. Minor grammatical changes for clarity.

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