

# **Adverse Weather**

**MSC-PRO-28034**

**Revision 3**

**Effective Date: January 28, 2015**

**Topic: Worker Protection**

## Adverse Weather

### CHANGE SUMMARY

#### Rev. 3

#### Description of change:

Changes were made in respect to grammar, the flow chart, hazardous weather notifications, minimizing the operation of government vehicles/equipment and ensuring hazardous snow/ice mitigation attempts are successful.

## Adverse Weather

### 1.0 PURPOSE

At Hanford, and throughout Southeastern Washington, seasonal weather conditions are typically very stable. However, on occasion, severe storm fronts pass through the region and are accompanied by lightning strikes, high winds, snow, or torrential rains. Since such phenomena occur infrequently and often appear quite suddenly, it is incumbent upon Mission Support Contract (MSC) Team management and employees to plan for exposure to these conditions when performing outdoor work activities. Adverse weather conditions occasionally disrupt work schedules and interfere with normal work-related activities. When these conditions occur, the Adverse Weather Procedure provides the guidance that MSC Team management and employees are expected to take to ensure the safety and security of all MSC personnel.

### 2.0 SCOPE

This Level 1 Business Administration Procedure is applicable to MSC Team employees performing MSC work scope. The MSC management team is responsible for safety throughout the MSC and for creating a safe work environment for all employees. This responsibility includes implementing the following adverse weather safety policies. Facility and Project Managers will ensure that a means to communicate appropriate guidance to subordinate Managers and Supervisors is in place when adverse weather condition alerts are transmitted by the Hanford Meteorological Station (HMS).

**NOTE:** *Real-time weather information is available from the web site and/or by telephone from the "On-duty Forecaster" at 373-2716.*

### 3.0 IMPLEMENTATION

This procedure is effective upon publication.

### 4.0 REQUIREMENTS

For the table in this section under the requirements "type" column, "V" means verbatim and "I" means interpreted.

#	Requirement	Type V or I	Source
1.	Observe the 30/30 rule: a) If you see lightning and hear thunderclaps within 30 seconds take storm counter-measures .... b) Do not resume work in exposed areas until 30 minutes after storm activity has passed. <b>NOTE:</b> <i>A mandatory requirement for Hanford fire department per 10CFR851</i>	V	NWCG-NFES 0065, <i>Fire Line Handbook</i> , National Wildfire Coordination Group, March 2004, Chapter 1 Firefighting Safety - Thunderstorm Safety, Page 19.

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	<i>Appendix A Section 2. Fire Protection and NFPA 1143 Wild land Fire Management Section A.5.4.3 (7) which calls out NFESs 0065.</i>		
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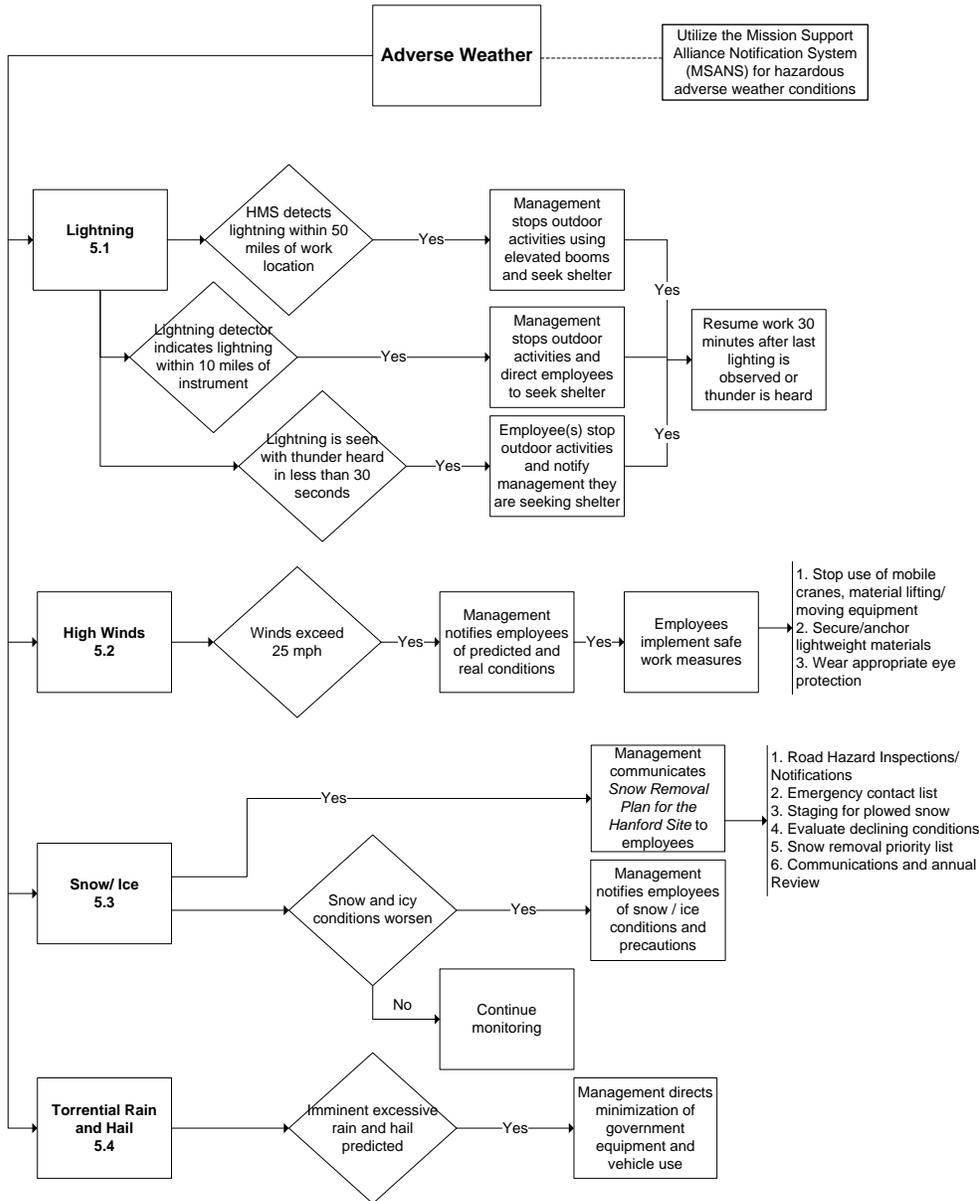
### 5.0 PROCESS

The steps described below provide management and employees direction in the event of four adverse weather situations. Figure 1 contains a flowchart that outlines the sequence of actions related to lightning, high winds, snow/ice, torrential rain and hail.

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
Management	1.	<b>Advanced warning of adverse weather</b> <ol style="list-style-type: none"> <li>a. Utilize methods such as the Hanford Meteorological Station (HMS), TV Weather Channel, NOAA Weather Radio or lightning detectors to keep abreast of adverse weather conditions when employees are deployed to perform outdoor activities.</li> <li>b. Ensure a method is available to communicate instructions to employees who may be affected by changing adverse weather conditions.</li> <li>c. HMS adverse weather advisories and MSA stop work notifications for all hazardous adverse weather conditions (lightning, wind, snow/ice, and torrential rain/hail) will be transmitted to personnel through the Mission Support Alliance Notification System (MSANS).</li> </ol>
Employees	2.	Comply with direction and policy relating to adverse weather safety.

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Figure 1. Adverse Weather Flowchart



## Adverse Weather

### 5.1 Lightning Safety

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
Management	1.	<p><b>Make decision to suspend activities and notify people</b></p> <p>a. Suspend all outdoor MSC work activities associated with the use of elevated booms (e.g., cranes, drilling masts) or aerial lifts (e.g., JLG's) when lightning is detected by the HMS within 50 mile radius of the work location in accordance with the Hanford Hoisting and Rigging Manual (DOE-RL-92-36).</p> <p>b. Suspend all outdoor MSC work activities when lightning is detected by the HMS within a 10-mile radius.</p> <p>c. Notify employees via radio, siren or other means.</p> <p>d. Develop and implement appropriate administrative and engineering controls to protect employees from lightning hazards where essential MSC work activities cannot be suspended.</p>
Employees	2.	<p>a. Suspend outdoor work where there is less than 30 seconds between the sighting of lightning and hearing of thunder.</p> <p style="text-align: center;"><b>NOTE:</b> <i>This is part of the 30/30 Rule. (NWCG-NFES 0065, Fire Line Handbook)</i></p> <p>b. Follow pre-job instructions if the task is determined to be an essential MSC work activity and cannot be suspended.</p>
	3.	<p><b>Move to safe location</b></p> <p>a. Safe locations include large permanent buildings or metal vehicles.</p> <p>b. Unsafe places include: near metal or water, under trees, on hills, or near electrical/electronic equipment.</p>
Management	4.	<p><b>Resumption of work</b></p> <p>a. Approve return to work after the absence of thunder and lightning has been observed for thirty minutes at the outdoor location.</p>

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<i>Actionee</i>	<i>Step</i>	<i>Action</i>
	b.	Direct/conduct a workplace walkthrough to look for any changed conditions that may need further review before work is approved to be resumed.

### 5.2 High Wind Safety

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
Management	1.	Implement safe work measures when high wind conditions (sustained at 25 miles per-hour or greater) are reported or detected, either by the HMS or onsite project wind monitoring instruments (i.e.; anemometer). At a minimum: <ol style="list-style-type: none"> <li>a. Suspend operation of mobile cranes and other personnel or material lifting/moving equipment during periods of high wind conditions unless special analysis is performed (e.g., Critical Lift) that demonstrates the work can continue safely and in accordance with the Hanford Hoisting and Rigging Manual (DOE-RL-92-36) and/or the equipment manufacturer's recommendations.</li> <li>b. Maintain MSC work sites and activities in a safe status during periods of high wind conditions by securing or anchoring lightweight materials and objects, debris, tools and equipment, etc.</li> </ol>
All employees	c.	Wear appropriate eye protection (e.g., safety glasses with side shields or safety goggles) when working or walking outdoors during periods of high wind conditions; <i>see</i> MSC-PRO-45009, <i>Personal Protection Equipment</i> .

### 5.3 Snow/Ice Safety

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
Management	1.	Implement safe work measures when hazardous snow/ice conditions are reported or detected, either by the HMS, the Hanford Patrol, or MSC Management.
	2.	Minimize the operation of government vehicles and equipment and ensure that hazardous snow/ice conditions have been mitigated where possible.
	3.	Communicate conditions and precautions to be taken and stop work notifications using established employee notification and communication processes and procedures.

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<i>Actionee</i>	<i>Step</i>	<i>Action</i>
	a.	Communicate to all MSC and MSC contractor employees, as/when appropriate, the content of the Snow Removal Plan for the Hanford Site.
		<b>NOTE:</b> The Snow Removal Plan, developed and maintained by the Public Works Department's Road Maintenance Department, addresses snow removal from MSC maintained roads, parking lots, and walkways, and includes emergency points of contact.

### 5.4 Torrential Rain and Hail Safety

<i>Actionee</i>	<i>Step</i>	<i>Action</i>
Management	1.	Minimize the operation of government vehicles and equipment, where possible, during periods of torrential rains and hail storms.
	2.	Communicate conditions and precautions to be taken by employees using established employee notification and communications processes and procedures.

### 6.0 FORMS

None

### 7.0 RECORD IDENTIFICATION

None

### 8.0 REFERENCES

#### 8.1 Source References

NWCG-NFES 0065, *Fire Line Handbook*, National Wildfire Coordination Group, March 2004

DOE-RL-92-36, *Hanford Hoisting and Rigging Manual*

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### 8.2 Working References

MSC-PRO-45009, *Personal Protective Equipment*

MSC-GD-58233, Event Notification

*National Lightning Safety Institute*

Snow Removal Plan for the Hanford Site

10 CFR 851 Worker Safety and Health Program

NFPA 1143: Standard for Wildland Fire Management