

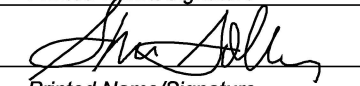





# UPF PAGE/PROCEDURE CHANGE NOTICE (PRCN)

PRCN Number:	PRCN-UPF-POLICY-CM-002-R04-01	PRCN Rev:	0	Effective Date:	09/16/22
<b>NOTE: PRCN Effective Date cannot precede effective date of associated document.</b>					
<input checked="" type="checkbox"/> PRCN Eligible Intent Change <input type="checkbox"/> Non-Intent Change					
Associated Document Number:	UPF-POLICY-CM-002			Rev:	4
Associated Document Title: UPF Weather Protocols					
Identify the scope of the change, including any new, removed, or changed content. Notate any references, such as Condition Reports, that are driving the change  <b>Add to the revision log:</b>  This PRCN adds CR 25774-000-GCA-GAM-03677, Action 1 to the revision log of the policy. Revision 4 was issued to address the concern raised in the CR; however the CR was not mentioned as the basis for the changes.  Changes to the Weather Protocols in response to CR-03677, Action 1: <ul style="list-style-type: none"> <li>• Table 1, Lightning Conditions, Announcements, and Actions to Be Taken, was modified to align with CNS Y-12 Lightning conditions and actions to be taken</li> <li>• A listing of safe shelters and areas to avoid in the event of lightning was added</li> <li>• Table 2, Windy Conditions, Announcements, and Actions to Be Taken, was modified to include additional wind speed conditions</li> <li>• Section 4.0 - Tornado Conditions was added.</li> <li>• Appendix A - Acronyms and Definitions was updated and expanded</li> <li>• Updated references; editorial changes</li> </ul>					

Preparer			
UPF Issues Management Coordinator:	Mark W. Murdock		08/12/22
		Printed Name/Signature	Date
Approval			
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UPF Site Manager:	Robert S. Solberg		08/12/22
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**UPF Weather Protocols**

Preparer:

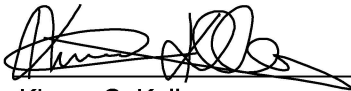


Mark W. Murdock  
UPF Issues Management Coordinator

06/16/22

Date

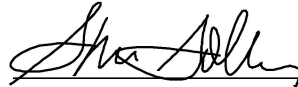
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Kieran S. Kelly  
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06/20/22

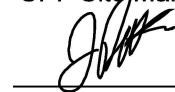
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Robert S. Solberg  
UPF Site Manager

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John H. Platt  
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07/20/22

Effective Date

**RC-UPF DMC**

06/21/22 08:50

This document has been reviewed by a Y-12 DC /  
UCNI-RO and has been determined to be  
UNCLASSIFIED and contains no UCNI. This review  
does not constitute clearance for Public Release.

Name: Steve Buffalo

Date: 06/20/22

**REVISION LOG**

<b>Revision 4</b>	<input checked="" type="checkbox"/> Intent <input type="checkbox"/> Non-Intent
<ul style="list-style-type: none"><li>• No forms have been edited as part of this revision</li><li>• An evaluation determination has been performed confirming that this Policy does not implement requirements tracked in the Programmatic Requirements Management System (PRMS)</li><li>• This revision is a total rewrite; due to the extent of changes, revision bars are not shown</li></ul>	
<b>Revision 3</b>	<input checked="" type="checkbox"/> Intent <input type="checkbox"/> Non-Intent
<ul style="list-style-type: none"><li>• Update to revise crane operations during windy conditions to comply with crane manufacturer's recommendations.</li></ul>	
<b>Previous revisions on record</b>	

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## 1.0 INTRODUCTION

### 1.1 Purpose

The Y-12 National Security Complex (Y-12) site meteorologist, Y-12 Operations Center (Y-12 OC), and Uranium Processing Facility (UPF) Construction and Environmental, Safety, and Health (ES&H) concurrently monitor weather conditions (i.e., lightning and high wind conditions) that have the potential to impact the safety of UPF personnel.

The Y-12 OC provides communications to the Y-12 Site and the UPF Project through the Public Address/Emergency Notification System (PA/ENS). The Y-12 OC or Site Emergency Director will announce via the PA/ENS when adverse weather conditions are approaching that have the potential to create unsafe working conditions. PA/ENS notifications will inform UPF Supervision and Craft personnel when outside work activities should be curtailed to prevent weather-related incidents and/or injuries. This system is used to communicate important information regarding adverse weather conditions that are frequently experienced throughout the year on the Y-12 Site.

During adverse weather, it may be necessary to take emergency protective actions which are outlined in the Building Emergency Plans (e.g., orange books).

Weather forecasts should be considered when planning all outdoor work activities. The potential for adverse weather conditions to impact outdoor work should be addressed during daily STARRT Card meetings.

## 2.0 LIGHTNING CONDITIONS

Weather conditions conducive to generating lightning strikes are unpredictable. Lightning strikes can occur well in advance of approaching storms. It is important all personnel immediately follow the directions provided by the Y-12 OC.

The Y-12 PA/ENS announcements are not broadcast inside buildings that are under construction. UPF personnel will be provided instructions from their Supervisors and/or ES&H Advisors via UPF Project radios in the event of an approaching storm that could produce or has generated lightning strikes.

Work activities inside construction buildings may continue during lightning events.

**Table 1** provides guidance and actions to be implemented by BNI ES&H and Project Superintendents for outdoor work activities based on the announcement provided by the Y-12 OC.

**Table 1. Lightning Conditions, Announcements, and Actions to be Taken**

<b>Lightning Condition</b>	<b>Announcements (via Y-12 PA/ENS)</b>	<b>Actions to be Taken (Responsible Superintendents)</b>
A Thunderstorm or Lightning is within 30 miles of the plant or thunder is heard and reported to the Y-12 OC.	"This is the Y-12 Operations Center. Lightning is approaching the Y-12 site. Personnel involved in outdoor work should be aware of changing weather conditions and be prepared to implement protective actions."	<ul style="list-style-type: none"> <li>• Stay alert to changing weather conditions</li> <li>• Notify Craft associated with outdoor work activities of potential storm event</li> </ul>
A Thunderstorm or Lightning is within 15 miles of the Y-12 Site.	"This is the Y-12 Operations Center. There is lightning activity in the vicinity of the Y-12 Site. Non-essential outdoor work should be curtailed until further notice."	<ul style="list-style-type: none"> <li>• Suspend all outside work activities; direct personnel to seek shelter in the closest approved safe shelter</li> <li>• Any personnel in outdoor areas (e.g., smoking areas) seek shelter in the closest approved safe shelter</li> </ul>
The storm has cleared the Y-12 site, as determined by Y-12 OC.	"All clear to resume outdoor activities."	Notify personnel to resume outdoor activities.

All of the buildings under construction are grounded and are considered safe shelters. Movement from building to building (e.g., safe shelter to safe shelter) is allowed during conditions when lightning is within 15 miles of the Y-12 site. Personnel may also travel to and from bus pick-up locations.

**When lightning is observed or announced over Y-12 Emergency Notification PA, seek safe shelter in:**

- Permanent buildings approved for occupancy (e.g., Construction Support Building [CSB])
- Large permanent buildings, including buildings under construction (e.g., Process Support Facility [PSF], Personnel Support Building [PSB], Salvage and Accountability Building [SAB], Mechanical Electrical Building [MEB], and Main Process Building [MPB])
- Temporary structures (e.g., office and break trailers) approved for occupancy (e.g., electrically grounded)
- Fully-enclosed vehicles with windows up if personnel cannot access a permanent building

Tower Cranes are grounded and insulated and may only be used by the operator or maintenance personnel as a safe shelter.

**Project personnel are not allowed to remain in or near the following areas during lightning events that are announced by the Y-12 OC:**

- Designated smoking areas
- High places (e.g., building roofs)
- Water (e.g., creeks, sediment basins, ponds, and puddles)
- Open areas across the Project (e.g., laydown yards)
- Utility vehicles (e.g., side-by-sides)
- Tall structures (e.g., trees, communication towers, tower cranes, and flag, light poles)
- Metal conductors, such as construction equipment, fences, telephone or power lines, pipelines, and steel fabrications

### 3.0 WINDY CONDITIONS

**Table 2** describes the actions expected when high winds are in the forecast or when windy conditions develop. Primarily, the actions are focused on crane operations, but blowing objects and dust can also be a hazard during windy weather. Precautions relative to these hazards shall be taken as well.

The Project Superintendent is responsible for:

- Ensuring all operators know the wind-related requirements and capabilities for their respective equipment
- Ensuring that crane operators understand their right to suspend lifting activities, based on work area wind conditions and/or load geometry and surface area, if unsafe weather conditions develop in advance of any Y-12 OC weather-related announcement.

**Table 2. Wind Conditions, Announcements, and Actions to be Taken**

Wind Conditions	Announcement (via Y-12 PA/ENS)	Actions to be Taken (Responsible Superintendents)
Sustained winds below 15 mph.	No announcement.	Ensures cranes are operated within the bounds of the Job Hazard Analysis (JHA), lift plans (when required), and the manufacturer's guidance.
Sustained winds between 15 and 25 mph with gusts less than 40 mph.	No announcement.	<ul style="list-style-type: none"> <li>• Ensures cranes are operated within the bounds of the Job Hazard Analysis (JHA), lift plans (when required), and the manufacturer's guidance.</li> <li>• Verifies work plans in place to begin and complete load movement prior to potential of sustained wind above 25 mph.</li> </ul>

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Wind Conditions	Announcement (via Y-12 PA/ENS)	Actions to be Taken (Responsible Superintendents)
		<ul style="list-style-type: none"> <li>Directs Craft to secure material and equipment vulnerable to elevated wind conditions.</li> <li>If necessary, contacts the Y-12 OC to determine if wind speeds are forecasted to exceed sustained speeds of greater than 25 mph.</li> </ul>
Sustained winds greater than 25 mph.	OC will announce: <i>"We are currently experiencing winds in excess of 25 miles per hour. All roof-top activities, elevated work, and mobile crane operations are suspended until further notice. Other activities that could be affected by wind gusts and high winds should be carefully assessed. Please report any wind damage to the OC at (865) 574-7172."</i>	<ul style="list-style-type: none"> <li>Communicate the OC's announcement to crane operators.</li> <li>Ensure that any crane operations in progress are suspended, loads safely lowered, and cranes placed in a safe condition.</li> </ul>
Wind gusts greater than 40 mph.	No announcement.	Ensure any crane operations in progress are suspended, loads safely lowered, and cranes placed in a safe condition.
When winds or storms have cleared, as determined by OC and UPF ES&H.	OC will announce all clear to resume outdoor activities or elevated work.	Verify that no wind-related damage occurred and notify personnel to resume activities.

**NOTE:** Wind speeds on the Y-12 Site are determined by the Y-12 OC and broadcast via site radios over the PA/ENS.

## 4.0 TORNADO CONDITIONS

Weather conditions frequently develop that are conducive to tornado formation. Peak tornado season is March through June, but tornadoes may occur during any month of the year, and at any time of day. If weather conditions develop that are conducive to tornadic activity, the Y-12 OC will broadcast an announcement via the PA/ENS of possible or probable tornadic activity and the need to seek immediate shelter.

When directed by the OC to seek shelter:

- Employees working inside of any permanent building (e.g., CSB, PSF, PSB, SAB, MEB, or MPB) should shelter in place, away from doors, openings, or wall penetrations



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- Employees working outdoors should immediately seek safe shelter in a strong, sheltered part of the closest permanent building
- Employees working in modular trailers and other temporary structures should evacuate to the nearest buildings designated as a safe shelter:
  - CSB Area Trailers (e.g., UPF Medical; 998T-R2, K9, L1, and L2; 9983-KS, KT, KU, and KV; and 9983-JV Tool Crib): Proceed to the interior portions of the CSB, away from doors or windows
  - B-2 Trailers and Laydown Yards: Proceed to the interior areas of Building 9114
  - K-1065 Warehouse, K-31 Facilities, Training Trailers: Proceed to the storm shelter
  - UPF Construction Site Trailers: Proceed to the interior portions of the closest permanent building: (e.g., PSF, SAB, PSB, MEB, MPB)

Employees should remain in these designated safe shelters until the All-Clear communication is provided by the OC.

## **5.0 RECORDS**

None

## **6.0 REFERENCES**

None

## **7.0 SUPPLEMENTAL INFORMATION**

*Appendix A, Acronyms and Definitions*

## **APPENDIX A**

### **Acronyms and Definitions**

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#### **Acronyms**

<b>CSB</b>	Construction Support Building
<b>ES&amp;H</b>	Environmental, Safety, and Health
<b>JHA</b>	Job Hazard Analysis
<b>MEB</b>	Mechanical Electrical Building
<b>MPB</b>	Main Process Building
<b>OC</b>	Operations Center
<b>PA/ENS</b>	Public Address/Emergency Notification System
<b>PSB</b>	Personnel Support Building
<b>PSF</b>	Process Support Facility
<b>PSS</b>	Plant Shift Superintendent
<b>SAB</b>	Salvage and Accountability Building
<b>UPF</b>	Uranium Processing Facility
<b>Y-12</b>	Y-12 National Security Complex

#### **Definitions**

None