PDR-OPS-042: SNOW AND ICE REMOVAL FROM PRODUCTION AREAS

PDR-OPS-042: SNOW AND ICE REMOVAL FI

Effective Date: January 15, 2024

Document Version: 2.1

Document Owner: Operations Department

Last Review Date: January 1, 2024

1. PURPOSE AND SCOPE

1. This Standard Operating Procedure (SOP) establishes mandatory

2. This procedure applies to all Company facilities where AMR testing
2. DEFINITIONS
"Critical Testing Zones" refers to designated areas where BlueCore
2. "Production Areas" encompasses manufacturing floors, assembly I
3. "Deployment Zones" means areas designated for AMR staging, cha
4. "Winter Weather Event" refers to any meteorological occurrence re
3. RESPONSIBILITIES
Facility Management shall:
-

Maintain contracts with certified snow removal services
-
Monitor weather conditions and initiate removal protocols
-
Document all removal activities and maintain compliance records
2. Operations Personnel shall:
-
Report hazardous conditions to Facility Management
-
Follow designated safe walking paths
-
Assist in monitoring AMR performance during winter conditions
3. Safety Officers shall:

3 -
Conduct daily inspections during winter weather events
-
Verify compliance with this procedure
-
Update emergency response protocols as needed
4. EQUIPMENT AND MATERIALS
1. Approved equipment includes:
-
Commercial-grade snow removal equipment
-
Non-corrosive ice melting compounds compatible with AMR compone
-

Safety-barriers and warning signage
-
Temperature and surface condition monitoring devices
2. Prohibited materials:
-
Rock salt in AMR testing areas
-
Chemical de-icers not approved by Engineering
-
Mechanical scrapers on specialized testing surfaces
5. PROCEDURES

1. Pre-Winter Preparation

5 -
Annual review of snow removal contracts by September 1
-
Equipment inspection and maintenance by October 1
-
Staff training completion by November 1
-
Update of emergency contact lists
2. During Winter Weather Events
-
Initiate removal operations when accumulation reaches 0.5 inches
-
Clear Critical Testing Zones first, followed by Production Areas
-

Maintaing designated safe paths between buildings
-
Document surface temperatures and conditions hourly
3. Post-Event Procedures
-
Inspect all cleared areas for residual hazards
-
Update weather monitoring logs
-
Verify AMR navigation system performance
-
Submit completion report to Operations Department
6. SAFETY REQUIREMENTS

1. Personal Protective Equipment (PPE):
-
High-visibility clothing
-
Slip-resistant footwear
-
Cold weather protection gear
-
Safety glasses when operating equipment
2. Environmental Monitoring:
-
Surface temperature readings every 2 hours
-
Wind chill factor assessment

- 8 -

Ice accumulation measurement

_

Visibility conditions documentation

7. QUALITY CONTROL

1. Documentation Requirements:

-

Daily inspection logs

_

Weather condition reports

-

Equipment maintenance records

-

Incidentgreports (if applicable)
2. Performance Metrics:
-
Response time to weather events
-
Clearance completion times
-
Surface condition ratings
-
AMR performance validation results
8. EMERGENCY PROCEDURES

1. In the event of:

10 -	
Power failure during removal operations	
-	
Equipment malfunction	
_	
Personnel injury	
-	
Extreme weather conditions	

Contact Emergency Response Team at extension 5911

9. COMPLIANCE AND AUDIT

1. This procedure shall be:

Reviewed annually by Operations Department

Updated as required by safety regulations

Audited quarterly during winter season

Included in regular safety training programs

10. DOCUMENT CONTROL

1. Revision History:

·

Version 2.1 (Current) - January 15, 2024

-

Version 2.0 - October 1, 2023

- 12 -

Version 1.0 - December 15, 2022

2. Distribution:

-

Operations Department

-

Facility Management

-

Safety Officers

_

Quality Control

-

All Production Personnel

11. AUTHORIZATION

This procedure is approved and authorized by:
_
Sarah Nordstrom
Chief Operating Officer
Polar Dynamics Robotics, Inc.
Date: _
_
James Barrett, Ph.D.
Chief Robotics Officer
Polar Dynamics Robotics, Inc.

Date: __14 -

