

OCCUPATIONAL HEALTH AND SAFETY MANUAL

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Polar Dynamics Robotics, Inc.

Effective Date: January 1, 2024

Document Version: 3.2

1. INTRODUCTION AND SCOPE

1. This Occupational Health and Safety Manual ("Manual") establishes the Company's commitment to providing a safe and healthy work environment for all employees.
2. This Manual applies to all Company operations, with specific emphasis on the following areas:

2. DEFINITIONS

1. "Controlled Temperature Zone" (CTZ): Any workspace maintained
2. "Personal Protective Equipment" (PPE): Specialized cold-weather g
3. "Safety Incident": Any occurrence resulting in injury, equipment dan

3. GENERAL SAFETY REQUIREMENTS

1. All employees must complete the Company's Safety Certification P
2. Minimum PPE requirements:
 - a) ANSI Z87.1 approved safety glasses
 - b) Steel-toed safety boots meeting ASTM F2413-18 standards

c) Company-issued cold-weather gear for CTZ access

d) High-visibility vests in robot testing areas

3. Emergency response equipment must be maintained at all designated areas

a) First aid kits

b) Emergency communication devices

c) Automated External Defibrillators (AEDs)

d) Emergency thermal blankets

4. CONTROLLED TEMPERATURE ZONE PROTOCOLS

1. CTZ Access Requirements:

a) Valid Safety Certification

b) Buddy system mandatory for all CTZ entries

- c) Maximum continuous CTZ exposure: 4 hours
- d) Mandatory 30-minute warm-up breaks between CTZ sessions

2. CTZ Emergency Procedures:

- a) Emergency exit locations clearly marked
- b) Warming stations at 50-foot intervals
- c) Emergency shutdown protocols for robotic systems
- d) Direct communication link to facility security

5. ROBOTIC SYSTEMS SAFETY

- 1. All personnel must maintain minimum safe distances from operation
 - a) 3 meters during normal operation
 - b) 5 meters during testing procedures

c) 7 meters during experimental protocol execution

2. Robot Safety Features:

- a) Emergency stop buttons clearly marked
- b) Visual and audible warning systems
- c) Proximity sensors and collision avoidance systems
- d) Remote shutdown capabilities

6. INCIDENT REPORTING AND INVESTIGATION

1. All safety incidents must be reported within 24 hours to:

- a) Immediate supervisor
- b) Safety Committee Chair
- c) Human Resources Department

2. Investigation Procedures:

- a) Initial assessment within 48 hours
- b) Root cause analysis
- c) Corrective action implementation
- d) Follow-up verification

7. TRAINING AND CERTIFICATION

1. Required Annual Training:

- a) General workplace safety
- b) CTZ operations
- c) Robot interaction protocols
- d) Emergency response procedures

2. Certification Renewal:

- a) Annual safety certification renewal required
- b) Quarterly CTZ protocol reviews
- c) Semi-annual emergency response drills

8. COMPLIANCE AND ENFORCEMENT

1. Compliance with this Manual is mandatory for continued employment

2. Violations will result in:

- a) First offense: Written warning
- b) Second offense: Temporary suspension
- c) Third offense: Employment termination

9. AMENDMENTS AND UPDATES

1. This Manual shall be reviewed annually by the Safety Committee.
2. Updates require approval from:
 - a) Chief Operations Officer
 - b) Safety Committee Chair
 - c) Legal Department

ACKNOWLEDGMENT

I acknowledge receipt of this Manual and agree to comply with all policies and procedures contained herein.

Employee Name: _

Employee ID:

Date: _

Signature: _

APPROVAL

Approved by:

Sarah Nordstrom

Chief Operations Officer

Polar Dynamics Robotics, Inc.

Date: January 1, 2024

Dr. Marcus Chen

Safety Committee Chair

Polar Dynamics Robotics, Inc.

Date: January 1, 2024

