SAFETY CERTIFICATION COMPLIANCE REPORT

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NaviFloor Robotics, Inc.

Report Date: January 11, 2024

Document Reference: SCR-2024-001

1. EXECUTIVE SUMMARY

This Safety Certification Compliance Report documents NaviFloor Ro adherence to applicable safety standards and certifications for its auto mobile robot (AMR) systems and fleet management platform. The rep certification status as of Q4 2023 through Q1 2024.

2. SCOPE OF CERTIFICATIONS

2.1 Product Lines Covered

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NaviFloor AMR-1000 Series (Models 1001-1005)

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NaviFloor AMR-2000 Series (Models 2001-2003)

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FleetControl(TM) Management Platform v4.2

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TerrainSense(TM) Navigation System v3.5

2.2 Geographical Coverage

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North America (UL/CSA)

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European Union (CE)

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Asia Pacific (CCC, KC)

3. PRIMARY SAFETY CERTIFICATIONS

3.1 UL Certifications

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UL 1740: Safety Standard for Robots and Robotic Equipment

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UL 1998: Software in Programmable Components

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Certificate Numbers: E475692, E475693

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Valid Through: December 31, 2024

3.2 CE Marking

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Machinery Directive 2006/42/EC

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EMC Directive 2014/30/EU

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Radio Equipment Directive 2014/53/EU

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Declaration of Conformity: DoC-2023-156

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Valid Through: Ongoing (Annual Review)

3.3 ISO Compliance

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ISO 10218-1:2011 (Robots and robotic devices)

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ISO 13849-1:2015 (Safety of machinery)

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ISO/TS 15066:2016 (Collaborative robots)

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Certification Body: T V S D

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Certificate Number: Z10 123456 0001 Rev. 00

4. SAFETY PERFORMANCE METRICS

4.1 Safety Integrity Level (SIL)

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TerrainSense(TM) Navigation System: SIL 2

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Emergency Stop Systems: SIL 3

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Collision Avoidance System: SIL 2

4.2 Performance Level (PL)

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Safety-Related Control Systems: PL d

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Motion Control: PL c

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Sensor Systems: PL d

5. TESTING AND VALIDATION

5.1 Internal Testing Protocols

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Protocol Reference: NF-TEST-2023-001

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Last Full Assessment: November 15, 2023

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Next Scheduled Assessment: May 15, 2024

5.2 Third-Party Validation

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Testing Laboratory: Intertek

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Report Numbers: ITK-23456-SAF, ITK-23457-EMC

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Testing Period: September 1-30, 2023

6. COMPLIANCE MONITORING

6.1 Continuous Monitoring Systems

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Real-time safety parameter monitoring

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Automated compliance logging

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Monthly safety performance reviews

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Quarterly compliance audits

6.2 Incldent Reporting

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Total Reportable Incidents (2023): 0

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Near-Miss Events (2023): 3

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Resolution Rate: 100%

7. RISK ASSESSMENT

7.1 Current Risk Profile

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Overall System Safety Rating: A+

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Critical Risk Areas: None identified

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Areas for Enhancement: Noted in Section 8

7.2 Mitigation Measures

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Redundant safety systems

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Fail-safe protocols

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Emergency override capabilities

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Remote shutdown functionality

8. RECOMMENDATIONS

8.1 Short-Term Actions

Upgrade emergency stop system firmware

Enhance sensor calibration procedures

Implement additional operator training modules

8.2 Long-Term Initiatives

Integration of AI-based predictive safety features
Enhanced environmental mapping capabilities
Extended battery safety protocols

9. CERTIFICATION MAINTENANCE

9.1 Renewal Schedule

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UL Certification: Annual review (Next: December 2024)

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CE Marking: Annual self-assessment

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ISO Compliance: Triennial audit (Next: 2025)

9.2 Documentation Requirements

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Monthly safety logs

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Quarterly performance reports

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Annual compliance reviews

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Incident investigation records

10. LEGAL DISCLAIMER

This Safety Certification Compliance Report is prepared for internal used diligence purposes only. While NaviFloor Robotics, Inc. has made reasefforts to ensure the accuracy of the information contained herein, this should not be construed as a warranty or guarantee of safety perform certifications are subject to the terms and conditions of their respective issuing bodies.

11. AUTHENTICATION

Prepared by:

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Date: January 11, 2024

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Date: January 11, 2024

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