UL 6260

Outline of Investigation for Remotely-Operated Inspection and Maintenance Equipment for Hazardous (Classified) Locations

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Summary of Topics

This is the second issue of the Outline of Investigation for Remotely-Operated Inspection and Maintenance Equipment for Hazardous (Classified) Locations, UL 6260 dated May 29, 2026. It covers the remotely-operated mobile platforms for inspection and maintenance equipment (mobile inspection and maintenance robots) for use in hazardous (classified) locations as defined in the NFPA 70®, National Electrical Code®, NEC, Art. 500 – 506 (US).

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1 Scope

1.1 These requirements cover remotely-operated mobile platforms for inspection and maintenance equipment (mobile inspection and maintenance robots) for use in hazardous (classified) locations as defined in the NFPA 70®, *National Electrical Code*® (NEC®), Art. 500 – 506 (US.

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1.2 Equipment within the scope of this Outline must be evaluated for the risks under one of the following options:

a) Fire, shock, explosion, and personal injury when operated autonomously;

b) Fire, electrical shock, explosion, and personal injury when operated under restricted administrative control; or

c) Fire, electrical shock, and explosion.

1.3 Equipment under restricted administrative control may be operated autonomously with site or remote supervision, or under direct operator control (remote or on board).

1.4 Equipment covered by this Outline may be powered by:

a) Rechargeable battery systems;

b) Electrical tether;

c) Hydraulic tether; or

d) A combination of the above.

The nominal system voltage shall not exceed 1000 V ac or dc unless specifically addressed elsewhere in this Outline.

1.5 The scope covers equipment such as unmanned ground and aerial vehicles (UGV and UAV) and remotely operated vehicles (ROVs) intended for contact with flammable and combustible materials, including submersion. The means of motion include crawling, tracked, wheeled, swimming, diving, flying or other transportable configurations with robotic features that are within the scope, and which are for use in a hazardous (classified) location.

1.6 Portions of a system, such as chargers or power converters that are not an integral part of the robot, are intended to be installed in accordance with NFPA 70, and any additional applicable installation codes.

1.7 Applicable ambient conditions

1.7.1 The requirements of this Outline are based on consideration of the following ambient conditions:

1) Ambient temperature of -20 °C ≤ Ta ≤ +40 °C;

2) An oxygen concentration of not greater than 21 % by volume; and

3) A pressure of 80 kPa (0.8 bar) to 110 kPa (1.1 bar)

Equipment specified for ambient conditions beyond the above limits may be subject to additional investigation.

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