![VEILUX — The Art of Surveillance]

✅ C1D1 COMPLIANCE CHECKLIST

For Security Cameras in Class 1 Division 1 Hazardous Locations

Use this checklist to verify that your surveillance system meets critical compliance, safety, and performance requirements in explosive gas/vapor environments.

1. Certifications & Regulatory Compliance

- **UL, CSA, FM, or IECEx certified** for Class 1 Division 1

- **ATEX Zone 1** certified (if applicable for international sites)

- NEC Article 500 compliant (US standards)

- Certification documents available from a **recognized testing laboratory**

- Product nameplate clearly displays C1D1 marking

2. Explosion-Proof Construction

- Enclosure is rated **explosion-proof** and designed to contain internal ignition

- Material is **316L stainless steel** or equivalent for corrosive environments

- **IP66/IP68** ingress protection rating

- Housing meets temperature classification required for specific gas group

- Pressure relief venting or flame path mechanisms (if required)

3. . Environmental Tolerance

- Operating temperature range: **–40°F to +140°F** (or site-specific)

- UV, chemical, and salt-corrosion resistance

- Designed to resist vibration and physical impacts

- Suitable for marine, offshore, or desert conditions (if applicable)

4. Camera & Imaging Capabilities

- **HD (1080p) or 4K resolution**

- **20x–30x optical zoom** (for PTZ units)

- **IR or low-light imaging** for night operations

- Optional **thermal imaging** (if required for heat/gas detection)

- Lens is explosion-proof or enclosed within certified housing

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5. Power & Connectivity

- **PoE, 24VAC, or 110VAC** power options rated for hazardous areas

- All cabling is **C1D1-rated conduit or armored**

- ONVIF-compatible for integration with NVR/VMS

- Remote streaming uses **secure protocols (SSL/VPN)**

- Fiber-optic options for high EMI environments (if needed)

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6. Installation Requirements

- Mounts and brackets are explosion-proof or C1D1-rated

- All accessories (junction boxes, seals, glands) are compliant

- Installed per **NEC Class I Division 1** standards

- Final installation certified by a **licensed hazardous location technician**

- Maintenance access procedures follow C1D1 safety protocols

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7. Documentation & Verification

- Product data sheet and certification files available

- Manufacturer provides **warranty and support for hazardous use**

- Maintenance log and inspection checklist ready for use

- Compliance confirmed by site's **EHS or electrical authority**