

Canadian Codes, Regulations And Industry Best Practices for Stationary Power Battery Systems

Canada regulations for environmental, health and safety are increasingly more stringent. National regulations are adopted by provinces and typically make amendments. Stationary battery systems fall under multiple regulations including hazardous material transportation, electrical safety, personal safety and fire prevention.

Because code adoption varies by each province, due diligence must be exercised to confirm compliance requirements. Failure to understand code requirements prior to installation could result in added costs, lost labor and project delays. For more information on codes, contact EnviroGuard or consult the EnviroGuard Compliance Knowledge Center at www.EnviroGuard.com.

CAUTION: ALWAYS CHECK WITH LOCAL AUTHORITIES HAVING JURISDICTION FOR ALL APPLICABLE CODE REQUIREMENTS.

Code, Regulatory and Standards Authorities

The list below references codes, regulations and standards that related to battery systems:

- Ministry of the Environment
 - o Environmental Protection Act
- NFC (The National Fire Code of Canada)
 - o OH5 Hazardous Substances Containment
- Canadian Transportation of Dangerous Goods (TDG) Regulations
 - o 49 CFR Hazardous Materials Regulations (Transportation, Training, Spill Containment, Signage)
- Canada Occupational Health And Safety Regulations
 - o SOR/86-304 Warning of Hazardous Substances 10.13 (Signage, Eyewash, Training)
- Occupational Health and Safety Act
 - o Ontario Regulation 67/93 Health Care And Residential Facilities (Signage & PPE)
 - o Ontario Health and Safety Reg 851 (Shower/Eyewash)
 - o R.S.O. 1990, Chapter O.1 (MSDS Material Safety Data Sheets)
- Fire Protection and Prevention Act, 1997
 - o Ontario Regulation 213/07 Fire Code (Spill Containment)
- IFC (International Fire Code)
 - o IFC Section 608 Stationary Lead-Acid Battery Systems (Spill Containment, Signage, Thermal Runaway, Spill Kits, Gas Monitoring)
- NFPA (National Fire Prevention Association)
 - o NFPA 1 Uniform Fire Code Article 52 Stationary Lead—Acid Battery Systems, NFPA 70 (NEC) National Electrical Code (Spill Containment, Signage, Thermal Runaway, Spill Kits, Gas Monitoring)
 - NFPA 70E Electrical Safety in the Workplace, Article 320 Safety Requirements Related to Batteries and Battery Rooms (*Training, Terminal Covers, Ventilation, Spill Control, PPE*)
- CSA (Canadian Standards Association)
 - Electrical Safety: Z462-08 Section 6.3 Battery and Battery Rooms (Electrical Safety, PPE)
- IEEE (Institute of Electrical and Electronic Engineers)
 - IEEE 1578 Recommended Practice for Stationary Battery Electrolyte Spill Containment and Management (Spill Containment)
 - o IEEE 484 Recommended Practice for Installation Design and Installation of Vented Lead-Acid Batteries for Stationary Applications (*PPE*, *Spill Containment*, *Ventilation*)
 - o IEEE 1187 Recommended Practice for Installation Design and Installation of Valve-Regulated Lead-Acid Batteries for Stationary Applications (*PPE, Spill Containment, Ventilation*)
 - IEEE 1657 Recommended Practice for Personnel Qualifications for Installation and Maintenance of Stationary Batteries (*Training*, *PPE*)