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## Fire Alarm System Training

Contact us Today for a FREE quotation to deliver this course at your company's location.

<https://www.electricityforum.com/onsite-training-rfq>

Tragic and costly fires, changes to codes, and greater use of Canada's National Fire Code are cogent reasons why owners and operators of buildings must become more familiar with fire suppression systems and the critical role that proper maintenance, testing and troubleshooting plays in making sure that the system works as specified, when it is needed!

This Fire Alarm System Training course is an in depth interactive training course based on a series of Interactive Workshops on fire alarm protection systems that discusses the purpose and specific application of the different codes and standards that regulate the industry. Avoid installation errors, failed inspections and false alarms!

You'll bring your knowledge up-to-code with in-depth instruction that focuses on the correct installation, testing, and use of fire alarm and signaling systems.

This interactive course maximizes its impact through dynamic curriculum and a learning environment that encourages discussions with other course attendees. Workshops are taught by a recognized and experienced fire protection professional who understands today's changing safety dynamics.

Technical workshops and exercises are based on the types of challenges you encounter in the field, so you'll leave with a wealth of practical tips, insights, and solutions you can immediately implement back on the job. This course will review the types of fire alarm systems, their selection and their applications for structures and processes. It will also cover special systems designed to prevent costly, life-threatening industrial fires and/or explosions.

You'll leave with a wealth of practical tips, insights, and solutions you can immediately implement back on the job.

**Upon completion students will understand:**

- Current Industry Standards
- Code Compliance
- Risk Management
- Design, Budgeting, Installation and Verification
- Inspection, Maintenance and Troubleshooting
- Detection
- Alarm Signaling and Monitoring
- Suppression
- Evacuation
- Emergency Lighting
- Emergency Backup and Generators

**Students will also be able to:**

- Navigate through the relevant codes to find required compliance
- Review key changes in industry standards and codes new to fire alarm systems
- Identify the key elements of all phases of a fire alarm system's life
- Identify the stakeholders at different stages of a fire alarm system's life
- Recognize the function of major fire alarm system components
- Locate and apply key fire detection requirements for emergency control functions such as door control and elevator recall, security access/egress and offsite monitoring

- Calculate the required spacing and determine the correct placement of fire detection and signalling devices

### WHO SHOULD ATTEND

Fire System and Electrical installation, testing and maintenance personnel, electrical contractors, facility managers, physical plant directors, fire and building inspectors in municipal, provincial and federal governments, service personnel, owners, plant managers and/or property managers for housing authorities, industrial, commercial and institutional properties.

### STUDENTS RECEIVE

- FREE 100-Page Digital Electrical Safety Handbook (Value \$20)
- \$100 Coupon Toward Any Future Electricity Forum Event (Restrictions Apply)
- 1.4 Continuing Education Unit (CEU) Credits
- FREE Magazine Subscription (Value \$25.00)
- Course Materials In Paper Format

### COURSE OUTLINE

#### DAY ONE

Installation and Maintenance Workshops

#### **The Grand Scheme of Fire Protection**

**Code compliance meeting the legal responsibilities for protecting a building!**

- IT BEGINS WITH THE BUILDING CODE
- INTERRELATIONSHIP OF CODES AND STANDARDS
- WHEN A FIRE ALARM SYSTEM IS REQUIRED
- WHEN MEETING THE MINIMUM IS NOT ENOUGH
- DEVELOPMENT AND USE OF A SYSTEM RISER DRAWING
- STANDARD SYMBOLS AND BLUEPRINTS
- PERSONNEL QUALIFICATIONS AND RESPONSIBILITIES
- CONTROL EQUIPMENT
- ELECTRICAL SUPERVISION
- INTRODUCTION TO SYSTEM TROUBLESHOOTING
- INITIATING DEVICE CIRCUITS
- MICROPROCESSOR ARCHITECTURE
- DIGITAL COMMUNICATION
- SERIAL DATA TRANSFER
- DATA COMMUNICATIONS LINK" (DCL).
- ALARM SIGNALING CIRCUITS
- EMERGENCY TELEPHONES
- REMOTE MONITORING CONNECTIONS
- WIRES AND CABLES
- FIRESTOP REQUIREMENTS
- THE RACEWAYS
- MEETING THE SAFETY REQUIREMENTS CSA Z462 ARC FLASH AND ELECTRICAL SAFETY STANDARD

### **Workshop I: Building Upgrade**

- SYSTEM VERIFICATION
- SYSTEM MODIFICATIONS AND CODE REQUIREMENTS
- MAINTAINING AN EXISTING BUILDING
- ECONOMICS AND BUDGET DEVELOPMENT
- HOW TO IMPROVE YOUR BOTTOM LINE
- IMPROVE SERVICE AND CUT COSTS
- The 2010 National Fire Code of Canada (NFC)
- DAILY to 6 MONTHS - MAINTENANCE OF SPRINKLER & FIRE ALARM

- EQUIPMENT (As per the National Fire code)
- 1 YEAR to 12 YEAR - MAINTENANCE OF SPRINKLER & FIRE ALARM EQUIPMENT (As per the National Fire code)
- CAN/ULC-S536 STANDARD
- SPRINKLERS AND NATIONAL BUILDING CODE REQUIREMENTS

### **SESSION 3: Workshop II- System Maintenance Pre-Annual Inspection**

- HIGH RISE BUILDINGS
- VOICE COMMUNICATION
- SINGLE-STAGE MANUAL STATIONS
- TWO-STAGE MANUAL STATIONS
- AUTOMATIC INITIATING DEVICES: FIRE SIGNATURES
- FIRE DETECTORS
- SMOKE DETECTORS
- SMOKE ALARMS
- SPRINKLERS IN LIEU OF FIRE DETECTORS

### **Workshop III: Ground Faults & Troubleshooting Wiring Circuits**

- TROUBLESHOOTING TECHNIQUES (CONTINUED FROM PREVIOUS WORKSHOP)

## **DAY TWO**

### **Workshop IV: SERVICE CALL TROUBLESHOOTING AND PREVENTATIVE MEASURES**

- AUDIBLE AND VISIBLE SIGNAL APPLIANCES
- MASS NOTIFICATION
- TYPICAL SYSTEM FAULTS, TROUBLES AND SOLUTIONS
- EMERGENCY LIGHTING REQUIREMENTS AND MAINTENANCE
- EMERGENCY VOICE COMMUNICATIONS CIRCUITS
- AMPLIFIER SIZING
- POWER SUPPLY
- PRIMARY POWER
- BATTERIES AND CHARGERS
- ENGINE DRIVEN GENERATORS
- ANCILLARY CIRCUITS
- AUXILIARY OPERATION/MONITORING
- SYSTEM OPERATIONAL PRINCIPLES
- SYSTEM OPERATIONAL TYPES
- FIRE ALARM SYSTEMS ZONING
- REQUIRED ANNUNCIATOR
- OUTPUT CIRCUITS
- FIELD DEVICES
- ZONING OF ADDRESSABLE DEVICES
- TRANSPONDERS (Distributed intelligence)
- NETWORKED SYSTEMS
- CENTRAL ALARM AND CONTROL FACILITY (CACF)
- UNDERSTANDING PANEL SOFTWARE PROGRAMMING
- COURSE KEY POINTS REVIEW AND QUESTIONS

### **Workshop V: Field Service System Troubleshooting Questions & Answers**

- Fire Alarm Software Programming
- CFAA Test Review

### **Review of expectations Questions and Answers**

## **COURSE TIMETABLE**

### **Both days:**

Start: 8:00 a.m.

Coffee Break: 10:00 a.m.

Lunch: 12:00 noon

Restart: 1:15 p.m.

Finish: 4:30 p.m.

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