LUNCH & LEARN
SEMINARS

ENGINEERING
SCIENCES
INVESTIGATION

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LUNCH & LEARN SEMINARS

ALARM SYSTEMS

INTRODUCTION TO ALARM SYSTEMS (2 hrs)
- Learn the main components of an alarm system;
- Grasp the operation of an alarm system (supervision types, main transmission signals).

FIRES

ANALYSIS OF A FIRE SCENE (3 hrs)
- Identify the main steps of investigating a fire scene;
- Study the basic principles of a fire investigation;
- Obtain pertinent information to determine the point of origin of a fire;
- Understand and use the NFPA* scientific method.

INTRODUCTION TO VEHICLE FIRES (2 hrs)
- Identify vehicle types and their mechanical and electrical components;
- Understand the main technical methods to locate a fire's origin and learn the main causes of a fire;
- Recognize the main clues of an intentional fire.

ANALYSIS OF ELECTRICAL SYSTEMS ON A FIRE SCENE (3 hrs)
- Get to know the main components of an electrical distribution system;
- Identify the components of an electrical derivation system;
- Review the effect of fire on the components of an electrical system;
- Obtain the pertinent information to determine a fire's point of origin.

AN INTRODUCTION TO FIRE MODELLING (1 hr)
- Grasp the basic engineering knowledge you need when handling fire-related claims;
- Acquire knowledge about the different types and uses of fire modeling from technical analysis to legal parameter.

THE DAWN OF MANDATORY RESIDENTIAL SPRINKLERS (1 hr)
- Understand the upcoming regulation changes with respect to mandatory residential sprinkler installation in new building construction in Ontario.

ARSON 101 (1 hr)
- Appreciate how an Origin and Cause expert with a solid background in Fire Dynamics can flag those fires that just do not fit the accidental category;
- Learn tips and guidelines to help insurance adjusters contribute to the overall arson investigation process.

INVESTIGATING SPRINKLER-RELATED CLAIMS (1 hr)
- Grasp the knowledge around the types of sprinklers available on the market, how they work and most importantly the types of failures and their repercussions.

MODERN SCIENTIFIC METHOD OF FIRE INVESTIGATION (1 hr)
- Appreciate how fire investigation has come a long way. When it was first practiced thirty years ago, one could say it was more of an "art" than a science;
- Find out how model developments in science, engineering and the understanding of fire dynamics has allowed for the refinement of the approaches to fire investigation;
- Understand the changes and the differences that the modernization to "art" has made.

WOOD HEATING

WOOD HEATING AND FIRE (3 hrs)
- Learn the most frequent causes of fires related to the use of wood heating systems and how to determine if a detailed investigation or inquiry is required.

MECHANICS

INVESTIGATING CLAIMS RELATED TO THE FAILURE OF CONTAINMENT VESSELS (1 hr)
- Be aware of common containment vessels and piping used to contain and/or transport various fluids such as water and hydrocarbon-based fluids;
- Understand how they are made, how they can fail and why.

SUMP PUMP FAILURES (1 hr)
- See how a sump pump can fail and quickly turn your basement into a pool!
- Get information about their construction, operation and possible malfunctions.

WATER DAMAGE DUE TO APPLIANCES (1 hr)
- Find out how the appliances that make your life a dream on a daily basis can become a nightmare in a flash;
- Learn the different modes of failure and how they occur.

ENVIRONMENT

INTRODUCTION TO ENVIRONMENTAL CHARACTERIZATION (2 hrs)
- Understand the existence and use of environmental characterization;
- Learn the main steps of characterization of a site;
- Get familiar with generic criteria of soil contamination;
- Find out the main directives of the ministry of environment (MDDELCC) and the applicable regulatory requirements regarding contaminated sites.

ASBESTOS MANAGEMENT IN A CLAIM (1 hr)
- Identify the principal materials that may contain asbestos;
- Get acquainted with intervention procedures in relation to risk;
- Learn the new requirements related to asbestos.

INTRODUCTION TO THE MANAGEMENT OF AN ENVIRONMENTAL LOSS (1 hr)
- Study the main steps of characterizing a site after a hazardous waste spill;
- Get to know the generic criteria of soil decontamination;
- Review the main directives of the ministry of environment (MDDELCC) and the applicable regulatory requirements concerning contaminates sites.

POOL FAILURES

POOL FAILURES AND PROBLEMS (1 hr)
- Identify pool failures and the risk factors for each of them;
- Learn the various safety standards and the owners' responsibilities;
- Understand the intrinsic problems tied to pools;
- Familiarize yourself with the types of failures and their causes, either from installation or maintenance.

* NFPA = National Fire Protection Association

LUNCH & LEARN SEMINARS

BUILDINGS, SOILS AND FOUNDATIONS

INTERACTION BETWEEN SOILS AND FOUNDATIONS (2 hrs)

- Identify various types of soils;
- Differentiate soils' behaviour under freeze and thaw;
- Understand the components of a foundation;
- Analyze interactions between soil and foundation;
- Familiarize yourself with the main characteristics of buildings and evaluate the impact of climatic and environmental factors on them.

BUILDING ENVELOPE (2 hrs)

- Understand the basic concepts pertaining to the building envelope;
- Identify main components of a building envelope;
- Understand the consequences related to the use of faulty components of a building envelope.

CONCRETE "PATHOLOGY" (3 hrs)

- Identify types of cement materials;
- Understand the basic concepts of this material's behaviour and related problems;
- Recognise and characterise various types of disorders;
- Learn different examination methods.

TECHNICAL INVESTIGATION OF SEWER BLOCKAGE AND BACKUP (2 hrs)

- Grasp basic hydrology notions and their application in sewer networks;
- Understand the main causes for backup and the role of check valves;
- Learn the regulation framing the installation of check valves;
- Identify responsibilities related to such cases.

SUBROGATION AND LIABILITY

THINK TANK ON CAUSATION AND LIABILITY (1 hr)

- Find out how to identify accurately and efficiently potential subrogation opportunities.

RESTORATION ENGINEERING

CIVIL SCOPING SERVICES (1 hr)

- Find out how you can benefit from the use of scoping;
- Quickly assess what needs to be done to secure, repair and/or rehabilitate cost-effectively any type of structural or infrastructural damage.

INFORMATION AND REGISTRATION

Designed to provide basic knowledge and concepts in forensic engineering, **CEP**'s team of engineers offers seminars designed for professionals in the insurance industry. These Lunch & Learn sessions focus on specific technical aspects you need to know regarding the various types of insurance claims, such as: fires, explosions, collapses, pool failures, floods, etc. In addition, the information presented by our professional engineers can be tailored to your group's level of expertise.

Our seminars are offered as Lunch & Learn Seminars or Technical Seminars and can be presented either at your office or at any of **CEP**'s offices: whichever is most convenient for you.

For more information or to organise a Lunch & Learn session at your office, please contact:

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