

### 1.0 Introduction

The Canadian Nuclear Safety Commission (CNSC) has a requirement for the delivery of a 5-day Management Oversight Risk Tree (MORT) training course for inspectors and technical specialists at the CNSC, who require specialized skills and competencies to conduct event investigations and to properly review licensee events. As part as the CNSC's core mandate on regulatory compliance with the established licensing basis, event investigations serve as a pillar for compliance verification and enforcement.

The purpose of this Advance Contract Award Notice (ACAN) is to signal the CNSC's intention to award a contract for the services of:

Conger-Elsea 2000 Riveredge Parkway, Suite 740 Atlanta, GA, 30328

Before awarding a contract, however, the CNSC would like to provide other suppliers with the opportunity to demonstrate that they are capable of satisfying the requirements set out in this ACAN, by submitting a statement of capabilities within the 15 calendar-day posting period for this ACAN.

If other potential suppliers submit a statement of capabilities during the posting period that meets the requirements set out in this ACAN, the CNSC may decide to proceed to a full tendering process through the Government Electronic Tendering Service, or to invite bids directly from suppliers.

If no other supplier submits a statement of capabilities meeting the requirements set out in this ACAN on or before the closing date, a contract will be awarded to the above-noted supplier.

### Background

In October 2000, the CNSC had Conger–Elsea deliver MORT training to over 20 CNSC staff members. Since that time, many of the individuals who took this training have either retired or were appointed to management-level positions. Several of the newer employees in two operational branches of the CNSC have requested the delivery of MORT training in order to be better equipped to perform their duties.

## Objectives

Deliver up to three 5-day MORT Training sessions in Ottawa, Ontario, on a mutually agreeable date, from Monday to Friday in the 2015-16 and 2016-17 fiscal years.

The workshop must provide attendees with an introduction to root cause analysis, events and causal factors analysis, interviewing witnesses, failure recognition and analysis, change analysis, energy (hazard)-barrier-target analysis, analytical trees, personnel reliability, MORT analysis,

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assembling facts and conclusions and building a defendable argument (oral briefing). Emphasis should be placed on conducting information-gathering interviews; model videotapes should be used to illustrate specific interviewing techniques. Case studies are utilized to illustrate methods, foster teamwork and practice interviewing and briefing techniques.

The workshop includes de following topics and activities:

- Model Program for Root Cause Analysis: Criteria, features, and illustrations of a state-of-theart root cause analysis program.
- Hardware Failure: Recognition & Analysis: Discussion of how to increase ability to detect typical hardware failure signs, gather and preserve evidence of hardware failure, and trace hardware failures to causal factors in the accident sequence.
- Events and Causal Factors Analysis: Guidelines, symbols and directions for sequencing an accident on events and causal factors chart.
- Investigative Interviewing: How to conduct an information gathering interview, including the opening of the interview, question types and sequences, and closing the interview.
- Presentation of Events and Causal Factors Chart: Participants present, discuss events and causal factors chart; instructor(s) critiques.
- Safety Culture and Human Performance: Examination of safety culture and human performance and their impact on other system components, emphasis on types of and underlying reasons for personnel errors.
- Analytical Techniques: Brief introductory guidance on using analytical techniques.
- Change Analysis: Exploration of the role of change in accidents and a model for identifying elements of change.
- Hazard-Barrier-Target (H-B-T) Analysis: Using H-B-T to describe, design and analyze systems for root causes
- Analytic Trees: Description of analytic trees: uses, principles of construction, parts, examples, symbols, with emphasis on fault trees.
- MORT Analysis:
  - Discussion and illustration of the Management Oversight and Risk Tree chart.
  - Includes a detailed discussion of the major branches of the chart and how to select the appropriate branches for use during investigations.
  - The major branches include: Technical Information System, Emergency Response, Operational Readiness, Maintenance, Inspection, Supervision, Higher Supervision,

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Personnel Error (Job/Task Analysis, Procedural Fit, Selection, Training, Supervisor Observation, Motivation, and Fitness for Duty), Detailed Hazard-Barrier-Target, Management System (Policy and Implementation), Program Review, Risk Assessment/Hazard Analysis, Safety Evaluation/Modification Evaluation, Human Factors, Procedures, Support Services, and General Design.

- Presentations of MORT Analysis: Participants present and discuss the preliminary MORT chart; instructor(s) critique(s).
- Integrating Information: Discussion of how to integrate various types of information into the investigation report, e.g., physical evidence, expert testimony, interviews, and analytical results. Formulating facts, conclusions and recommendations.
- Corrective Actions: Developing, writing and evaluating corrective actions. Applying criteria and analytical techniques to corrective actions.
- Oral Briefings: How to prepare, organize and deliver an effective oral briefing. Participants will conduct oral briefings and will be videotaped for feedback.

## 2.0 Scope of Work and Deliverables

The provider will deliver up to three 5-day course to a maximum of 22 participants per session.

The vendor will:

- Deliver the training sessions in English to CNSC employees
- Use CNSC cases studies
- Provide electronic copies of the manuals
- Distribute CNSC evaluation forms

Provider will supply:

• Video camera or other forms of learning aids, as required

The CNSC will provide:

- Laptops
- Training room
- Flip charts, marker, pens, and other supplies, as required.
- Screen
- Copying of training manuals, as needed

## Deliverables

Due dates identified below are estimates based on the premise that a contract would be in place by October 2015.

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The Contractor will review and come to agreement on these due dates with the Project Authority at Contract Award and then during the contract period as required.

### I. Start-up meeting

Date: 10 days after contract award

- Location: Via Tele/Videoconference
- Purpose: to discuss the proposed case studies related to each of the following CNSC directorates: DNSR, DSM, DNCFR and DPRR.

# II. Forwarding of training materials and communication needs (e.g., projector, participant laptops, and easel flip charts) to the Project Authority

Due Date: 20 days prior to delivery of course.

Copies: One electronic copy via email to the Project Authority.

Purpose: To ensure that the training materials are available for participants and that communication tools are available to participants and instructors to facilitate learning/training.

### III. Delivery of up to three 5-day training sessions.

Due Date: As determined with the Project Authority between October 2015 and March 2017.

Location: Ottawa, Ontario

Purpose: To train up to 22 CNSC employees per session as per course learning objectives.

### **Cost for service**

The estimated value of the contract is approximately \$80,000 to \$85,000 CAN (up to 3 sessions by March 2017; maximum of 22 participants per session). This pricing includes instructor travel and expenses. Applicable taxes are extra.

### 3.0 Minimum Mandatory Requirements

Any interested supplier must demonstrate, by way of a statement of capabilities, that it meets the following requirements:

- Minimum of 10 years in event investigations applying MORT methodology
- Minimum of 10 years delivering MORT methodology training

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# 4.0 Justification for the Pre-Selected Supplier

Conger-Elsea has been providing training and consulting in root cause analysis and investigation since 1982, having trained over 18,000 people and growing, around the world. The company's training and methodologies has become a standard for many US and foreign country regulatory agencies, including the US Nuclear Regulatory Agency, the US Pipeline and Hazard Materials Safety Administration, Bureau of Safety and Environmental Enforcement, the European Union, the International Atomic Energy Agency, and the Canadian Nuclear Safety Commission, as well as for utilities, oil, chemical, pharmaceutical, energy companies around the world.

## 5.0 Intellectual Property

Ownership of any Foreground Intellectual Property arising out of the proposed contract will vest in the Contractor.

# 6.0 Statement of Capabilities

Suppliers who consider themselves fully qualified and available to meet the specified requirements may submit a statement of capabilities in writing to the Contracting Authority identified in this Notice, on or before the closing date of this Notice. The statement of capabilities must clearly demonstrate how the supplier meets the advertised requirements. The closing date and time for accepting statements of capabilities is October 15, 2015 at 2:00 p.m. EST.

## 7.0 Contact Information

Inquiries and statements of capabilities are to be directed to:

Dan Simard, Senior Contracting Officer 280 Slater Street P.O. Box 1046, Station B Ottawa, Ontario Canada K1P 5S9 Telephone: (613) 996-6784 Facsimile: (613) 995-5086 E-mail: Dan.Simard@cnsc-ccsn.gc.ca

## 8.0 Policy Information

Government Contracts Regulations (GCRs) - Section 6. d) "Notwithstanding section 5, a contracting authority may enter into a contract without soliciting bids where:

(d) Only one person is capable of performing the contract.

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