



August 1, 2014

**Subject:** Letter of Interest regarding the Conduct of a Physical Demands Analysis and potential modification of an existing or creation of a new physical abilities test (Canadian Nuclear Security Fitness Test (CNSFT)) for the Canadian Nuclear Safety Commission (CNSC file no. 87055-14-0194)

### **A.1 Background and Purpose of this Letter of Interest (LOI)**

The purpose of this Letter of Interest (LOI) is to obtain information before finalizing the requirements definition and procurement strategy for the subject project which is being carried out by the Directorate of Security and Safeguards (DSS) of the Canadian Nuclear Safety Commission (CNSC). The Physical Demands Analysis and the associated physical abilities test relate specifically to the Nuclear Security Officers and the on- site Nuclear Response Forces. Maintenance of a physical demand analysis and a subsequent bona- fide occupational requirement(BFOR) physical abilities test is required in support of regulatory requirements to assess and certify the physical fitness of Nuclear Security Officers and the on- site Nuclear Response Force members.

The prospective contractor must demonstrate proficiency in conducting a physical demands analysis and modification of an existing or creation of a new physical abilities test that meets a BFOR standard under the direction of a qualified specialist with a PhD in the field of exercise physiology. Further, the prospective contractor must demonstrate proficiency in developing manuals, training and delivering training sessions certifying Nuclear Security Officers and the on- site Nuclear Response Force members to set up, conduct and assess the fitness test.

Further details of the project and scope of work are further outlined in Annex “A” – Work Statement to this LOI.

### **A.2 Nature of this Letter of Interest**

This LOI is not a solicitation and there is no commitment with respect to future purchases or contracts. Potential suppliers of the services described in this LOI should not reserve stock or facilities, nor allocate resources as a result of any information contained in this LOI. The procurement of any services described in this LOI will not necessarily follow this LOI. This LOI is simply intended to solicit feedback from industry with respect to the matters described in this LOI.

### **A.3 Nature and Format of Responses Requested**

Respondents are requested to provide their responses to questions in Section A.6.

Responses are to be sent by email to:

Contracting Authority: Alex Cassol  
E-mail Address: [alex.cassol@cnsccsn.gc.ca](mailto:alex.cassol@cnsccsn.gc.ca)  
Telephone: (613) 996-6638

### **A.4 Response Costs**

CNSC will not reimburse any respondent for expenses incurred in responding to this LOI.

### **A.5 Treatment of Responses**

- a) **Use of Responses:** Responses will not be formally evaluated. However, the responses received may be used by CNSC to develop or modify procurement strategies or any draft documents contained in this LOI. CNSC will review all responses received by the LOI closing date. CNSC may, in its discretion, review responses received after the LOI closing date.
- b) **Confidentiality:** Respondents should mark any portions of their response that they consider proprietary or confidential. CNSC will handle the responses in accordance with the Access to Information Act.
- c) **Follow-up Activity:** CNSC may, in its discretion, contact any respondents to follow up with additional questions or for clarification of any aspect of a response.

### **A.6 Question to Recipients of this LOI**

1. Would you/your company/organization be able to provide the services outlined in Annex "A" – Statement of Work within the estimated dates related to the deliverables and a proposed budget estimate.
2. Would you/your company/organization be interested in bidding on any solicitation that may be issued related to the work outlined in Annex "A – Statement of Work?"

### **A.7 Submission of Responses**

- a) **Closing Date for Submission of Responses:** Suppliers interested in providing a response should deliver it to the Contracting Authority identified above **by 2:00PM EST on August 18, 2014.**

- b) **Responsibility of Timely Deliver:** Each respondent is solely responsible for ensuring its response is delivered on time per the instructions specified in this LOI.
- c) **Language of Response:** Responses may be in English or French at the preference of the respondent.

#### **A.8 Enquiries**

Because this is not a bid solicitation, CNSC will not necessarily respond to enquiries in writing or by circulating answers to all potential suppliers/respondents. However, respondents with questions regarding the LOI may direct their enquiries to:

Contracting Authority: Alex Cassol  
E-mail Address: [alex.cassol@cnsccsn.gc.ca](mailto:alex.cassol@cnsccsn.gc.ca)  
Telephone: (613) 996-6638

## ANNEX “A” - WORK STATEMENT

### **1.0 Background**

The CNSC Nuclear Security Regulations require that any licensee, before issuing an authorization to act as a nuclear security officer, (among other requirements) that they obtain from the person, a certificate, signed by a fitness consultant recognized by the Canadian Society for Exercise Physiology or a person with equivalent or higher qualifications, certifying that the person is physically able to perform tasks that are likely to be assigned by the licensee.

The CNSC has previously (had) undertaken development of a BFOR fitness test (CNSFT) which was produced after a detailed job task analysis. The test was developed in modular format to enable steps or stages of the test to be modified if or as required when changes in the job task analysis or the work environment justified such changes. The test also was developed as a progressive effort model and includes additional stages or modules that are unique to the nuclear security officers who also hold the qualifications and duties to act as the on-site nuclear response force. The current certification frequency is that nuclear security officers must successfully undertake and complete the testing each 12 months and the on-site nuclear response force members must successfully undertake and complete the testing each 6 months. Testing is administered by the licensees using “master trainers” who certify test administrators to conduct the testing. No change is foreseen to this model. The tests should be non-biased such that the same test may be used for incumbents and potential recruits.

The job task analysis and tests are now at a point where they should be examined to confirm the BFOR requirements and test construct remain valid or require adjustment.

### **2.0 Objectives**

The selected provider will deliver the following five deliverables:

- Phase #1- Conduct a Physical Demands Analysis
- Phase #2 - Test Development/Redevelopment
- Phase #3 - Volunteer Testing
- Phase #4- Recertification and Training
- Phase #5 - (at the discretion of the CNSC) Mandatory Testing oversight, analysis of results, adjustments to testing conduct or protocols

The supplier will be expected to provide subject-matter expertise as well as a high quality of design and instructional skills, and to work in collaboration with CNSC and licensee resources to ensure the design and development of a high quality fitness abilities test(s), associated test manuals and training materials, and delivery of a qualification for “master trainers” and development of a test administration qualification to be administered by the master trainers for delivery to test administrators who will perform the qualification assessments.

**Contractor Resources:**

Contractor will identify individuals who will deliver the job task analysis, physical abilities assessment test, physical abilities assessment test manual and training and their qualifications. No substitutes will be provided unless approved by the CNSC project authority.

**Government furnished materials:**

The following materials will be accessible to contractors:

Nuclear Security Regulations  
Regulatory Document 363 Nuclear Security Officer Medical, Physical and Psychological Fitness Components of Regulatory Document 2.12.1 High Security sites: Nuclear Response Force  
A Physical Demands Analysis of NRT and NSO Positions (~2004)

**3.0 Scope of Work**

Carry out the work in phases 1-4 inclusive by 31 March, 2015

Phase 5 will be determined at the discretion of the CNSC.

Due to operational commitments, the contractor must adhere to the proposed schedule.

**4.0 Tasks to be Performed**

A prospective contractor will be asked to demonstrate proficiency by developing plans and clarify the proposed approach, work plan and schedule to ensure achievement of the contract objectives. The contractor shall make a presentation with the above purpose in mind.

Based on the outline and consultation of furnished training material, the contractor will deliver the following points set out in each Phase:

## **Phase 1 – Physical Demands Analysis**

A Physical Demands Analysis (PDA) must be conducted, documented, and provided to the CNSC. The PDA process for Nuclear Security Officers and Nuclear Response Force officers will require visits to two or three sites. The PDA will examine the work performed which will aid in obtaining data for the development or modification of a bona fide, job specific physical fitness standard.

Evaluation must consider routine tasks (~75% of annual work), training (~20%) and emergency tasks (<5%), and should be supported by evidence obtained through:

- Interviews of a representative group of NRF/NSO personnel will be done as part of the site visit;
- Measurement of equipment and environmental factors (terrain of site) affecting the physical demands of NRF/NSO personnel;
- Evaluation of the current physical fitness tests required for NSO/NRF members according to RD 363 Nuclear Security Officer Medical, Physical and Psychological Fitness and *REGDOC-2.12.1: High Security Sites-Nuclear Response Force* to see if the tests are job-specific as well as defensible for the work that is required or expected to be performed by NRF members;
- Observation/evaluation of the demands of training encompassing all aspects of the physical abilities required.

## **Phase 2 – Test Development / Redevelopment**

The existing test will require evaluation to determine if it is acceptable as is, requires modifications or whether a new test development is required. Test development will be delivered by the Contractor and will involve a progressed effort course (stations will go from low level of effort to high levels). There will be one (1) modular test. Nuclear Security Officers will run X stations of the test and Nuclear Response Force officers will complete X+ stations. Phase 2 also involves:

- Development of participant readiness to undertake (medical / physical checks, consent & waiver forms such as PAR-Q and PARmed-X);
- Test set-up / administration;
- Establishment of a “Test results” database – Alpha / Beta Testing;
- Test outline materials;
- Data analysis;

- Test grading;
- Training manuals provided outlining physical preparation before the test;
- Post-test consults.

### **Phase 3 – Volunteer Testing**

Volunteer testing will involve running trial tests with individuals who are NSO and NRF members. This will set the standard for future testing and training.

- Have volunteers run through the tests;
- Create/confirm standards for tests from results from volunteers

### **Phase 4 – Recertification and Training**

A Master Trainer Course will be developed and delivered by the contractor. The course will involve ~12 persons who will then certify test administrators at their respective sites. The contractor must define the frequency for recertification and training and will be responsible for the following:

- Course planning;
- Course development;
- Materials development (Test manuals will be developed in both official languages);
- Create visual aids (graphics, videos. etc.) where applicable;
- Create assessment tools as required;
- Deliver training;
- Make content and/or delivery adjustments if necessary.

### **Phase 5 – Mandatory Testing**

This phase will be at the discretion of the CNSC, if and when applicable.

In addition, the CNSC will:

- Establish quality standards, expectations and schedules,
- Provide directions concerning the execution of the service,
- Coordinate meetings with the Contractor as required,
- Provide feedback to the Contractor on the quality of the services provided.

## 5.0 Deliverables

**All deliverables are to be submitted in English and French.  
All hard deliverables are to be submitted to the CNSC's Project Authority.**

### 5.1 Start-up Meeting (1 or 2 meetings as required)

Date: within two weeks of contract award

Location: The CNSC Head Office, Ottawa.

Purpose: To discuss and clarify the proposed approach, work plan and schedule to ensure achievement of the contract objectives. The contractor shall make a presentation with the above purpose in mind.

### 5.2 Progress Meeting

Date: To be determined

Location: CNSC Head Office, Ottawa or via video or teleconference

Purpose: To assess the degree to which the agreed project objectives are being achieved as planned and thus to facilitate timely adjustments (if necessary) to ensure the project success.