

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) for the Canadian Nuclear Safety Commission (CNSC File # 87055-14-0194)

# 1.0 Introduction

The Canadian Nuclear Safety Commission (CNSC) has a requirement for qualified specialist with a PhD in the field of exercise physiology to examine and confirm the bona-fide operational requirement (BFOR) status of the Canadian Nuclear Security Fitness Test (CNSFT) to ensure the BFOR requirements and test construct remain valid or require adjustment.

The purpose of this advance contract award notice (ACAN) is to signal the CNSC's intention to award a contract for these services to:

Peak Centre for Human Performance Bell Sensplex, 2nd Level 1565 Maple Grove Rd. Kanata, ON K2V 1A4

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 posting period for this ACAN, which is 15 calendar days.

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

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

## 2.0 Background and Scope of Work

On August 1, 2014 the CNSC published a Letter of Interest (LOI) on the Government Electronic Tendering Service (GETS) to obtain information from industry before finalizing the requirements definition and procurement strategy for this requirement. The LOI reference number: PW-00647733.

The period of the proposed contract is from contract award to March 31, 2015.

The estimated value of the contract, including the option period, is **\$200,000.00 Canadian Dollars.** Applicable Taxes are extra.

The Statement of Work for this requirement is attached to this ACAN as Annex A.

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# 3.0 Minimum Mandatory Requirements

Any interested supplier must demonstrate by way of a statement of capabilities that it meets the following mandatory requirements in order to perform the work required as outlined in the Statement of Work attached as Annex A to this ACAN:

## 3.1 Experience:

- a) Must have 5 years' experience within the last 10 years conducting a physical demands analysis and modification of an existing or creation of a new physical abilities test that meets a BFOR standard.
- b) Must have 5 years' experience within the last 10 years 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.

# **3.2 Education/Academic Qualifications:**

a) Must have a PhD from a recognized institution in the field of exercise physiology or work under the direction of a qualified specialist with this PhD.

## 3.3 Knowledge:

a) Must demonstrate applied knowledge of Canadian federal nuclear related acts and regulations and associated documents such as Regulatory Documents in the field of Medical, Physical, and Psychological Fitness for Nuclear Security Officers.

## 4.0 Security Requirements

There is a security requirement associated with the requirement. The following clauses will be included in any resulting contract for this requirement and the Contractor must meet these terms and conditions:

a) The Contractor's and/or its personnel requiring access to Protected A or B information, assets or sensitive work site must at all times during the performance of the contract, maintain a valid RELIABLITY STATUS granted by Canadian Industrial Security Directorate (CISD), Public Works and Government Services Canada (PWGSC), Canadian Nuclear Safety Commission or another Federal Departments.





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- b) The Contractor and/or its personnel MUST NOT remove any PROTECTED and/or CLASSIFIED information or assets from the identified work site(s).
- c) The Contractor and/or its personnel MUST NOT use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data.
- d) Subcontracts which contain security requirements are NOT to be awarded without the prior written permission of Canadian Nuclear Safety Commission.
- e) The Contractor must comply with the provisions of the Security Requirement Check List attached to this Contract as Annex C.
- f) The Contractor is solely responsible for obtaining any security clearance required for the performance of the work under this contract.
- g) The Contractor is responsible to return to the CNSC security officer (or other designated person) any building access cards issued related to the Contractor's work under this Contract. If such cards are not returned to the appropriate authority, the CNSC reserves the right to deduct from the Contractor's final invoice an amount sufficient to offset the CNSC's costs to replace any such cards.
- h) The CNSC performs a criminal record name check (CRNC) on all contractors who require access to the CNSC facilities for the performance of their work. The Contractor hereby agrees to release any information required by the CNSC in order for it to complete a verification of the Contractor's CRNC. Failure to provide such information will constitute grounds for the CNSC not to award the contract to the contractor – or, if the contract has commenced, to terminate the contract under the provisions of Public Works and Government Services Canada's General Conditions 2010B, incorporated herein by reference.

# 5.0 Justification for the Pre-selected Supplier

Peak Centre has been identified as the only supplier that is capable of meeting this requirement for the following reasons:

- a) Peak Centre has the requisite background and combination of knowledge and experience as stated in Section 3.0 of this ACAN.
- b) Peak Centre is a recognized subject matter expert in the field of Physical Demands Analysis and exercise physiology in general and in the nuclear industry.
- c) Peak Centre meets the security requirements (see Section 4.0 of this ACAN).
- d) Peak Centre was the only supplier that responded to the aforementioned LOI published on GETS.





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# 6.0 Intellectual Property

Ownership of any foreground intellectual property arising out of the proposed contract will vest in the contractor as per <u>The Standard Acquisition Clauses and Conditions (SACC) Supplemental</u> <u>General Conditions ID 4006 - Contractor to Own Intellectual Property Rights in Foreground</u> <u>Information.</u>

# 7.0 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 9, 2014.

## 8.0 Contact Information

Inquiries and statements of capabilities are to be directed in writing to:

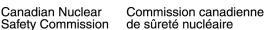
Sarah Latour 280 Slater Street P.O. Box 1046, Station B Ottawa ON, K1P 5S9 Canada

Fax: 613-995-5086 Email:sarah.latour@cnsc-ccsn.gc.ca









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## ANNEX A

### STATEMENT OF WORK

#### 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) 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 undertaken development of a bona-fide operational requirement (BFOR) Canadian Nuclear Security 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 Contractor 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

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The Contractor 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.

### 3.0 Scope of Work

The Contractor will perform the work in Phases #1 to #5 and Phase #5 if necessary as stated in Section 4.0 by March 31, 2015

Due to the CNSC's operational commitments, the Contractor must adhere to the proposed schedule.

### 4.0 <u>Tasks to be Performed</u>

The 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 for each Phase:

## Phase 1 – Physical Demands Analysis

A Physical Demands Analysis (PDA) must be conducted, documented and provided to the CNSC by the Contractor. The PDA process for Nuclear Security Officers and Nuclear Response Force officers will require the Contractor to visit two (2) or three (3) sites in Ontario. The PDA must 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:

- a) Interviews of a representative group of NRF/NSO personnel done as part of the site visit
- b) Measurement of equipment and environmental factors (terrain of site) affecting the physical demands of NRF/NSO personnel

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- c) 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
- d) 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:

- a) Development of participant readiness to undertake (medical / physical checks, consent & waiver forms such as PAR-Q and PARmed-X)
- b) Test set-up / administration
- c) Establishment of a "Test results" database Alpha / Beta Testing
- d) Test outline materials
- e) Data analysis
- f) Test grading
- g) Training manuals provided outlining physical preparation before the test
- h) Post-test consults

#### Phase 3 – Volunteer Testing

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

- a) Have volunteers run through the tests
- b) Create/confirm standards for tests from results from volunteers

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### 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:

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

#### **Phase 5 – Mandatory Testing**

This phase will be exercised at the discretion of the CNSC, if and when applicable. The Contractor shall not start work for this phase until the CNSC has requested the Contractor to start the Phase 5 work.

The CNSC will:

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

#### 5.0 <u>Deliverables</u>

All deliverables are to be submitted in English and French.

All hard deliverables are to be submitted to the CNSC's Project Authority.





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- 5.1 Start-up Meeting (1-2 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 Meetings

- Dates: To be determined
- Location(s): The CNSC Head Office, Ottawa
- 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.

#### 5.3 First Formal Progress Report

Due Date: 4 weeks after contract award

Copies: One electronic copy via email to the Project Authority

Format and style requirements:	To be specified by the Project Authority. The font Times
	New Roman 12 is to be used.

#### 5.4 Initial Findings Report

Due Date: January 5, 2015

Copies: One electronic copy via email to the Project Authority

Format and style requirements: To be specified by the Project Authority. The font Times New Roman 12 is to be used.

#### 5.5 Second Formal Progress Report

- Due Date: January 31, 2015
- Copies: One electronic copy via email to the Project Authority

Format and style requirements: To be specified by the Project Authority. The font Times New Roman 12 is to be used.

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#### 5.6 Draft Final Report

5.7

5.8

Due Date:	February 28, 2015	
Copies:	One electronic copy via email to the Project Authority	
Format and sty	Format and style requirements: As specified in the Final Report.	
Presentation		
Due Date:	March 15, 2015	
Location:	The CNSC Head Office, Ottawa	
Purpose:	To present the project findings, conclusions and recommendations documented in the Draft Report to the CNSC Commission.	
Final Report		
Due Date:	March 31, 2015	
Copies:	One electronic copy via email to the Project Authority	

and / or Five bound copies and one unbound, un-punched, single-sided reproducible master.

Format & style requirements:

To be specified by the Project Authority. The font Times New Roman 12 is to be used. Electronic copies must be provided in a format readable by Word 2003 with minor formatting changes. Any electronic files that cannot be read or require major formatting changes when opened are <u>not acceptable</u> and may be returned to the contractor for correction. The CNSC reserves the right, at its own discretion, to have the final report printed under CNSC cover, and to distribute it publicly. Translation of the abstract into French or English, CNSC report covers and the publication number will be provided by the CNSC.

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