



## Advance Contract Award Notice 87055-17-0157

### 1.0 Introduction

The Canadian Nuclear Safety Commission (CNSC) has a requirement for support and delivery of the International Atomic Energy Agency (IAEA) Spent Fuel Verification Training and DCVD Training for Spent Fuel Verification courses using the Cerenkov Viewing Device (CVD) and the Digital Cerenkov Viewing Device (DCVD). This very sensitive non-intrusive instrument for spent fuel verification is one of the most used tools at the IAEA. The IAEA has requested the CNSC's assistance to facilitate these two courses this fiscal year (2017/2018) and possibly another two years if required by the IAEA.

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

Channel Systems Inc.  
Box 188, S2-24 Aberdeen Avenue  
Pinawa, Manitoba R0E 1L0

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 will 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

The CNSC's Canadian Safeguards Support Programme (CSSP) is one mechanism used by the CNSC to fulfill its mandate on the peaceful uses of nuclear energy pursuant to the Nuclear Non-Proliferation Treaty (NPT). The CSSP provides support for the implementation of Canada's safeguards obligations and provides resources and assistance to the IAEA in order to ensure the successful application of safeguards in Canada and the peaceful use of Canadian-exported nuclear material, technology, and equipment.

Since 1993, the CSSP has been supporting the International Atomic Energy Association's (IAEA) Spent Fuel Verification Training course using the Cerenkov Viewing Device (CVD) and recently the Digital Cerenkov Viewing Device (DCVD). This very sensitive non-intrusive instrument for spent fuel verification is one of the most used tools at the IAEA. The IAEA has requested the CSSP's assistance to facilitate these two courses this fiscal year (2017/2018) and going forward, with the involvement and support of an appropriate contractor.

The CSSP accepted IAEA task B1688, *Spent Fuel Verification Training Course*, in order to provide IAEA inspectors with necessary skills to perform spent fuel verification as described in Safeguards Manual. The training course will also improve effectiveness and efficiency for the IAEA inspectors conduct spent fuel verification activities at nuclear facilities.



## Advance Contract Award Notice 87055-17-0157

The CSSP accepted IAEA task B1930, *DCVD Training for Spent Fuel Verification*, in order to contribute to IAEA's Capability 13 "*Ability to deploy the required expertise and skills to continue to fulfil the IAEA's mandate(s)*" of the project SGCP-102 in the D&IS Programme for Nuclear Verification, 2014-2015. It will support the long-term direction "Achieve the technical and behavioural competencies of IAEA safeguards staff needed to successfully carry out their assigned safeguards duties and to strengthen SSACs competencies in the fulfillment of their safeguards obligations" in sustaining Strategy 2 "Coping with the workload" and Strategy 6 "Managing the workforce" in the Departmental Long-Term Strategic Plan, 2012-2023.

These two courses are to be held in Austria and Sweden at a facility that has spent fuel assemblies with missing pins and thus provides realistic scenarios for partial defect tests. Experience from the courses in Japan in 2012 and Sweden in 2012 shows that the training is optimized with 2 students per DCVD. Initially, this task was created specifically to train inspectors to verify spent fuel at the Fukushima Daiichi site before transfer to a difficult to access storage area. IAEA's needs continue to depend on the progress of the Fukushima campaign but also on changes of staff within Operations A. As such, it is likely training will be required on an annual basis for at least the next three years. Further courses beyond 2018 will depend on the IAEA's needs.

The CNSC has a requirement to contract the above described work, to facilitate the IAEA's spent fuel verification and DCVD training courses and provide IAEA inspectors with comprehensive training to enable them to competently perform spent fuel verification based on ICVD/DCVD and other techniques using the approved standard procedures.

### 3.0 Scope of Work

The work will involve the following:

- consult training stakeholders to set up the training courses;
- review, update, revise, and produce the material for the courses;
- present and conduct the designated lectures/exercises in Vienna and Sweden (or where designated) during the month of November 2017, and in a timeframe to be agreed upon with the IAEA in FY2018/2019 and FY2019/2020.

### 4.0 Tasks to be Performed

- Project management.
- Revise and if necessary, produce the course material as requested by the IAEA.
- Provide one instructor to present and conduct the designed lectures and exercises in Vienna and Sweden
- Produce a final report on conducting the course indicating the work has been done and work still required to be accomplished.

### 5.0 Minimum Mandatory Requirements

- Three years of experience in delivering lectures in subject of science, technology or engineering in English to participants with various culture and language backgrounds.
- Comprehensive knowledge and understanding of nuclear fuel cycle, spent fuel and Cerenkov light



## Advance Contract Award Notice 87055-17-0157

- Five years of practical experience using the ICVD and DCVD for spent fuel verification in field, thorough knowledge of operation of this equipment and associated data analysis.
- University degree in science and technology or engineering for the lecturer

### 6.0 Justification for the Pre-selected Supplier

Channel Systems Inc. (CSI) has developed the DCVD system which is licensed from CNSC for marketing of the device. This DCVD is the only equipment currently approved by the IAEA to detect partial defect of spent fuel in field. CSI has also conducted joint researches with a Swedish partner on improvement of the detection of Cerenkov light associated with spent fuel.

CSI has provided spent fuel verification training and DCVD partial defects detection training to the IAEA on behalf of the Canadian Support Program for a number of years. CSI also conducted training of inspectors to verify spent fuel at the Fukushima Daiichi site before transfer to a difficult to access storage area. Therefore, CSI has the unique knowledge and expertise on both the ICVD and DCVD to teach these courses.

### 7.0 Intellectual Property

Not Applicable

### 8.0 Period of proposed contract:

Approximately from October 2017 to March 31, 2018 with two (2) one-year option periods.

### 9.0 The estimated value of the contract

The estimated value of the contract, including the option periods, is between **\$165,000.00 and \$200,000.00 CAN** (applicable taxes are extra).

### 10.0 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 September 13, 2017.**



## Advance Contract Award Notice 87055-17-0157

### 11.0 Contact Information

Inquiries and statements of capabilities are to be directed to:

Dan Simard  
Canadian Nuclear Safety Commission  
280 Slater Street  
P.O. Box 1046, Station B  
Ottawa, Ontario. K1P 5S9  
CANADA

Telephone: 613-996-6784  
Fax: 613-995-5086  
Email: [dan.simard@canada.ca](mailto:dan.simard@canada.ca)

### 12.0 Policy Information

*Government Contracts Regulations*: section 6(d): “only one person is capable of performing the contract.”

Subject to the World Trade Organization – Agreement on Government Procurement (WTO-AGP)

Subject to the North American Free Trade Agreement (NAFTA)

Subject to the Agreement on Internal Trade (AIT)