

**STATEMENT OF WORK (SOW)**  
**DE-SOL-008449**

**Implementation Contract for the National Nuclear Security Administration (NNSA)**  
**Office of Nuclear Smuggling Detection and Deterrence (NSDD)**

The National Nuclear Security Administration, Albuquerque Complex

March 2015

## **1. OBJECTIVE**

The objective of this procurement is to install integrated sustainable radiation detection equipment at selected international land border crossings, airports, feeder ports and seaports in cooperation with international partners around the world in order to strengthen the overall capability of partner countries to deter, detect, and interdict illicit trafficking in special nuclear and other radiological materials.

The focus is on the integration activities that are needed for the design construction, and integration of:

- Standardized installation designs, equipment, and communication systems to the maximum extent possible;
- Site designs that are cost effective, easily installed, and have a high system availability; and
- Installations that minimally disrupt commerce and movement of people or cargo and that are easy to configure, use, and maintain.

The program plans to install hardware in up to 150 ports of entry and other checkpoints under the NSDD Implementation Program, in approximately 30 foreign countries over the next seven years. As the work progresses, it is estimated that the Contractor will have sites in as many as twenty countries working simultaneously. The countries under consideration by the NSDD program include countries in the Former Soviet Union, Europe, Asia, Southeast Asia, Africa, Middle East Central and South America and other regions to be determined.

## **2. SCOPE OF WORK**

The scope includes the site design and installation of portal monitoring equipment and associated communication equipment as described below. The Contractor will be responsible for integrating this key on-the-ground effort that will involve local subcontractors. The NSDD program will integrate the work carried out under this SOW into the larger program effort that also involves the contributions of national laboratories and other contractors who have specialized capabilities. The Contractor will perform the technical requirements necessary for installation of individual sites, support sustainability efforts including maintenance, training and other initiatives as directed, provide Program-wide management of the Contractor's efforts including configuration management, website management, logistics, and other management and oversight tasks as necessary. The work sought by the NSDD program office shall be specified on a individual task order basis and issued by the Contracting Officer. A task order for in-country support may incorporate multiple sites within that country, region, or other logical grouping. Additionally, Program-wide Task Orders will be issued to cover Program-level Management and other requirements that are not directly allocable to a single country.

## **3. BACKGROUND**

The NSDD program is one of several offices within the Office of Global Material

Security and plays a key role in NNSA's nonproliferation mission. NSDD strengthens the overall capability of partner countries to deter, detect, and interdict illicit trafficking in special nuclear and other radiological materials at international border crossings, seaports, and other points of entry/exit.

The NSDD program coordinates with host governments to install and operate systems for the detection of special nuclear and other radiological materials that may be smuggled through them. The NSDD program initially focused on Russia and has expanded to other former Soviet states and partner countries throughout the world. Under this Contract, the Contractor will support implementation and sustainability of sites outside of Russia. Rapid installation and effective operation of these systems in partnership with foreign countries is a key priority of NNSA.

The NSDD program office is currently organized into two program elements; implementation and sustainability. Implementation focuses on the design, installation, and testing of equipment at border crossings, airports, and seaports. Sustainability focuses on training, longer-term maintenance of installed equipment, and transition of responsibility for these activities from NSDD to the partner country. Implementation contractors will primarily perform work under the Implementation Program, but may be tasked to perform work for the Sustainability Program.

#### **4. TECHNICAL REQUIREMENTS**

The Contractor shall perform the following activities:

##### **4.1. Design Engineering**

The Contractor shall provide design engineering that promotes design efficiencies, including the use of host country design services and the application of lessons learned. NSDD will provide existing standard designs, which includes the reference library of previously modified standard designs and designs developed for site specific requirements.

##### **4.1.1. Standard Designs**

The Contractor shall standardize the installation designs to the maximum extent practicable. The Contractor shall maintain a set of standard designs for the installation of NSDD equipment.

The Contractor shall ensure that standard system designs satisfy equipment installation and operating requirements for Government Furnished Property (GFP) and contractor acquired property.

The Contractor shall ensure the traceability of requirements between all NSDD design specifications, design documents, and acceptance testing documents and procedures.

##### **4.1.2. Customized or Site-Specific Design Engineering**

The Contractor shall customize designs or, if necessary, develop new site-specific designs to meet host-country design requirements and system needs. The detailed site

designs shall meet the requirements of the Construction and Engineering Design Requirements (CEDR).

#### **4.1.3. Design Management and Oversight**

The Contractor shall provide design management, and oversight for these projects. If necessary, the Task Order may require use of domestic or host country design firms. The Contractor shall provide engineering and consulting services to U.S. agencies and their contractors as required. The Contractor shall review, comment on, refine and/or modify designs provided by third parties

#### **4.1.4. Design Reviews and Surveys**

The Contractor shall participate in site surveys, engineering surveys, conceptual design reviews, preliminary design reviews, construction readiness reviews, communication reviews and other engineering meetings. The contractor shall be responsible for all other surveys and reports necessary to meet local standards to include, wind loading, geographical surveys, soil and any other necessary studies.

### **4.2. Construction Management**

The Contractor shall, utilizing host country firms to the maximum extent practicable, install radiation portal monitors (RPMs) and associated communication equipment at NSDD sites.

Installation may include the following in new or modified form: facility construction, radiation detection system installation, communication system installation, landscaping, asbestos and lead abatement, utility system upgrades such as water (potable and fire), telephone/computer systems (other communications), and emergency power. Facility construction may include the following in new or modified form: mechanical and electrical systems, exterior and interior systems, heating and air-conditioning, and other systems to provide for a functional, operating building/facility. Construction services may also include the demolition of old equipment and facilities, and removal of debris and unwanted materials. The Contracting Officer's Representative (COR) shall be notified in writing whenever asbestos, lead, or other hazardous material abatement construction services are encountered or required.

#### **4.2.1. Construction Quality, Health and Safety**

The Contractor shall ensure that quality assurance, environment, safety, health, and design requirements are met by in-country subcontractors. The Contractor shall ensure all permits and local inspections are obtained as required.

The Contractor shall report all Quality, Health and Safety incidents or near-incidents to the COR.

#### **4.2.2. Domestic Construction for Test, Maintenance and Repair Facilities, and Training Centers**

The Contractor shall perform limited domestic construction upgrades to existing or new NSDD test, maintenance and repair facilities, and training centers in the continental United States (CONUS).

### **4.3. Communication System Maintenance and Development**

#### **4.3.1. Communication System CAS Software**

The Contractor shall provide Central Alarms System (CAS) software from a vendor using a software solution that is designed for the radiation detection industry and is operationally proven in NSDD installations. The software shall be CONUS and OCONUS tested and meet the requirements of the NSDD current System Requirements Specification (SRS) and all addenda. The contractor shall deploy this CAS software system without customization for all deployments unless otherwise directed by the Task Order SOW.

#### **4.3.2. Software Change, Version Control, and Configuration Management**

The contractor shall ensure configuration management of the installed systems to maximize standardization and to ensure that only NSDD approved changes to the software are implemented and that those changes are documented.

The contractor shall deliver a fully configured CAS application and documentation including, but not limited to, training, support, lessons learned, troubleshooting guide, FAQs, and user and system administration manuals ready to be baselined in the NSDD configuration management system.

To the extent possible and consistent with NSDD requirements, NSDD will minimize customizations or enhancements in the form of software modifications to the CAS application.

The CAS software shall be configurable within the defined parameters and meet all SRS requirements, with the exception of specific external system interfaces. Contractor shall track software defects and provide NSDD with a proposed solution to address these defects.

The contractor shall assess hardware, software, network, system management, and desktop devices, and shall provide a minimally acceptable system configuration to meet TO requirements.

### **4.4. Specialized Engineering Services**

The Contractor shall perform specialized engineering services required in support of NSDD mission requirements. Such services may include:

- a. Assessments, feasibility studies, and market surveys of state-of-the-art radiation detector and communication equipment;
- b. Studies to improve communication system designs and minimize cost and schedule;
- c. Reliability, performance, and life cycle assessments of NSDD equipment; and
- d. Test and evaluation support of new or existing equipment designs

#### **4.5. Program Management and Integration**

The Contractor shall effectively manage its services to the NSDD program, serve as the central coordinator and integrator for its site installation activities, and provide other services to the NSDD program.

The Contractor shall provide technical support for program planning activities with NSDD Program Office officials and technical support to host country government officials and contractors, as required.

##### **4.5.1. Program Management Plan**

The Contractor shall prepare, for approval by the NSDD program Office, a Program Management Plan (PMP) to define its approach for managing work under this contract. The Contractor also shall develop procedures for implementation of the PMP. The specific requirements for the PMP shall be defined in a Program Management task order, but shall include at least the following subject matter:

- a. Program organization of work/tasks via a work breakdown structure with a WBS dictionary
- b. Staffing and resource requirements
- c. Organizational roles and responsibilities
- d. Management of U.S. subcontractors
- e. Management of foreign subcontractors
- f. Quality assurance
- g. Material management
- h. Project controls and reporting for budget, accounting, and schedule
- i. Export control licensing
- j. Website structure and functionality
- k. Management and reporting of cash flow/financing requirements
- l. Invoicing
- m. Risk management
- n. Training
- o. Maintenance
- p. Security
- q. Environmental, health, and safety
- r. Hazard, hardship, and incentive fees
- s. Property Management

##### **4.5.2. Configuration Management**

The Contractor shall provide configuration management procedures for all design and installation activities. The Contractor's configuration management procedures must complement and support the NSDD program Configuration Management Plan.

##### **4.5.3. Program Integration**

The Contractor shall coordinate simultaneous design, construction, and integration activities within multiple countries, and at multiple site locations. The contractor shall designate a single point of contact (Task Order Manager) for each country or delivery

order to address all project operations.

NSDD may direct the Contractor to coordinate and collaborate with other NSDD contractors and National Laboratories, as needed, to satisfy specific design requirements and program objectives.

#### **4.5.4. Program Websites and Information Technology**

The Contractor shall develop and manage a website that will facilitate program communication and reporting. The Web-Based Reporting System shall have the capacity to contain all documents, including task orders, proposals, reporting requirements and other documents related to task/delivery orders awarded under the Contractor's contract. The system shall require a strong password for access to the system and require a single password from each person to be entered only once in the system a single access point to the system. Roles will be assigned to each user to determine access to the sections of the system. The system manager should be able to add and remove access capability quickly.

### **4.6. Logistics**

#### **4.6.1. Import/Export Control Licenses**

The Contractor shall obtain the necessary export licenses for all equipment either purchased or manufactured in the United States and shipped to NSDD partner countries or purchased overseas and shipped to an NSDD partner country. The Contractor shall provide ECCNs for all equipment purchased, regardless of the point of origin or final destination, and shall provide this information upon delivery.

#### **4.6.2. Shipping, Packaging, and Storage in Foreign Country**

The Contractor shall ship equipment and material to NSDD partner countries. Once in country, the Contractor is responsible for the safe storage, transportation, maintenance and security of all GFP and Contractor purchased equipment. This responsibility will remain with the Contractor until the entire system is accepted by the U.S. Government.

#### **4.6.3. Management of Government Furnished Property, Radiation Portal Monitors**

GFP will be specified in the individual Task Order SOW. The NSDD inventory of GFP RPMs is managed by a separate contractor. In accordance with paragraph 4.6.2, the Contractor shall coordinate with the NSDD Equipment Management Services contractor to ship any equipment specified as GFP.

#### **4.6.4. Purchase of new Radiation Portal Monitors and Other NSDD Equipment**

The Contractor may be required to purchase equipment, such as portal monitors, handheld survey meters, radiological isotope identifiers, and radiation pagers. NSDD will provide the specifications for any Contractor purchased radiation detection equipment.

#### **4.6.5. Translation and Interpreter Services**

The Contractor shall provide translators and/or interpreters to translate deliverables, letters and faxes, reports, meeting and training materials, and other miscellaneous items required for the NSDD program and provide interpreters for assistance in conducting meetings with host country representatives.

#### **4.6.6. Host-Country Logistics**

The Contractor shall assist NSDD in preparing briefing materials for presentation at meetings in the host country.

The Contractor shall procure host country transportation services, host country meeting facilities, supplies, and other services necessary to support host country team meetings, site visits, acceptance testing, workshops and exercises, and other activities.

#### **4.7. Inspection, Testing and Turnover**

The Contractor shall provide technical and logistical support for inspection, testing, and assessment of deployed systems and the capability of operators prior to the transfer of operational responsibility to a partner country and the Sustainability Program, in accordance with the NSDD Inspection, Testing and Turnover Guide. The Contractor shall provide Test Plans and reports identified in the NSDD documents as applicable.

#### **4.8. Maintenance and Lifecycle Services**

Outside entities typically will provide maintenance and lifecycle services. However, NSDD may ask the Contractor to provide these services on a case-by-case basis. In the case that NSDD requires the Contractor's support for these services, the Contractor shall provide, as required, on-site maintenance, repair, replacement, and refurbishment of NSDD equipment and systems until systems are accepted. Maintenance services include regularly scheduled activities to ensure equipment components are properly connected and are in good working order. Maintenance shall be provided by local technicians to the maximum extent practicable. All maintenance shall be performed by trained technicians in accordance with manufacturer maintenance manuals and procedures. Repair and replacement of failed, damaged, lost, or stolen parts or components is required. Warranty provisions of Contractor-supplied equipment shall be enforced by the Contractor. Additionally, the Contractor shall coordinate with NSDD help desk points of contact and provide trend analysis on an as-needed basis.

##### **4.8.1. Training**

Per NSDD request, and on a case-by-case basis, the Contractor shall provide training to host country personnel on the performance of certain maintenance activities. In such cases, the Contractor's responsibilities may include curriculum development in addition to training delivery.

##### **4.8.2. Post Acceptance Maintenance Services**

Long-term maintenance of the installed systems may be required under this contract. Activities for long-term maintenance and repair will be specified in the individual Task Order SOW.

**4.8.3. Spare Parts**

The Contractor may be requested to provide and/or maintain minimal quantities of spare parts for radiation portal monitors, communications systems and handheld devices. Specific parts and quantities will be specified in the individual Task Order SOW.

**5. DELIVERABLES**

**The Contractor shall deliver reports as specified in the Reporting Requirements Checklist.**

DRAFT