

**TITLE: AUTOMATED INSPECTION CHECKLIST APPLICATION AND
PROCEDURE DEVELOPMENT SERVICES**

Revision 0

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STATEMENT OF WORK

1.0 INTRODUCTION / BACKGROUND

This SOW is issued for the performance of *Automated Inspection Checklist Application and Procedure Development Services* in support of CH2M HILL Plateau Remediation Company (CHPRC) work scope for the period contract award through September 30, 2016. CHPRC is a prime contractor to the Department of Energy (DOE) and all work on this Statement of Work will be performed in support of the CHPRC contract with DOE.

CHPRC currently uses a manual system to perform daily, weekly, monthly, and quarterly Inspection/surveillance rounds. These manual procedures are being replaced with an automated software system. The purpose of this work is to develop an automated inspection checklist application that will provide our operators both the hardware for the recording of the data well as user software that will help to streamline our current manual process.

2.0 DESCRIPTION OF WORK – GENERAL

Contractor employee(s) shall be responsible for independently planning, organizing and performing a wide variety of non-hazardous specialized administrative/technical duties in support of the successful completion of goals and deliverables and in accordance with all provisions of the contract.

The contractor shall procure Commercial off the Shelf (COTs) software program and hardware to perform the integration, installation, and configuration necessary to implement an automated inspection checklist program at CHPRC. The contractor shall be responsible for loading and configuring the COTs software in CHPRC approved, contractor supplied equipment, provide a technical procedure to support the automation, provide technical document support in accordance with the PRC-PRO-IRM-309 Rev 5, Change 0, *Controlled Software Management* Acquired software grade level D requirements , a training program, training manuals, and operator guides. CHPRC will provide the overall guidance for system implementation as well as designating subject matter experts in the processes to be implemented. An MSA team will provide technical resources as needed for integration of the software to the HLAN network and programming interface software for the existing records database.

3.0 DESCRIPTION OF WORK – SPECIFIC

The CHPRC Waste and Fuels organization work scope requires the use of controlled software along with the capabilities and information contained in the following procedures. These include: PRC-PRO-OP-52330 (WMP-200-4.15 Rev 24, Change 2), SWOC Surveillance Program, SWSD-PRO-OP-51714 (SW-040-043 Rev 9, Change 9), Inspect CWC &

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Miscellaneous Buildings, and SWSD-PRO-OP-51716 (SW-040-051 Rev 4, Change 1), Cold Weather Protection Plan

The Hanford Local Area Network (HLAN) is a shared multi-contractor environment that supports Hanford. The contractor's product must be implemented within the parameters of the HLAN technical requirements. This work includes support for project planning and deployment strategies, support for the product installing and configuration process. Training and knowledge transfer of the installation and base configuration process to the CHPRC technical system administrator.

3.1 Task Description

The work products and services to be provided, including any specific CHPRC standards and requirements, required for the successful completion of this work activity includes products and services, using specific CH2M HILL standards and requirements, required for the successful completion of this work activity. Software and hardware procurement and integration work, including the planning of this work, as required, will be done in accordance with PRC-PRO-IRM-309 Rev 5, Change 0, *Controlled Software Management*.

For all tasks the specific individual(s) conducting the task shall be capable of demonstrating extensive experience working in cyber security and safety software development.

The specific tasks within this SOW includes:

Task 1: Configure electronic inspection checklist software program

Contractor will configure and implement a COT's electronic inspection checklist application which conforms to existing manual technical CHPRC procedures. Contractor will configure software for CHPRC staff including operators, supervisors, read-only users, and super users.

High-level functional requirements for the software are attached to this SOW. Refer to CHPRC-02820, Rev 1, *Field Automated Checklist Tracking System (FACTS) Functional Requirements Document* dated February 2016. (Reference 7.3 Attachments)

Task 2: Electronic rounds procedure

Contractor shall provide an electronic rounds procedure. The plan shall document the activities required to install the subcontractor's software. The rounds procedure shall document the tasks for conducting operator rounds, supervisor reviews, and super user review. The contractor will provide procedure writing support including interfacing with CHPRC subject matter experts to produce and distribute a new or revised CHPRC technical procedure for this SOW, and provide controlled software management procedure support document support for level D software implementation into CHPRC database.

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Task 3: Training

Contractor shall provide user training program, hardware manual, and software training guide for both group and individual operators, supervisors, and super users.

Task 4: Installation and acceptance testing

Contractor will work with CHPRC to conduct operator and working environment surveillances in order to determine configuration, procedure, and training criteria. Software installation will be performed on-site by the contractor in CHPRC approved recording equipment. Equipment vetting is to include preloaded, configured software in multiple styles of hardware for field use and testing.

Task 5: Interface installation

Contractor shall provide technical support, including on-site support as requested by Buyer, guidance, and recommendations to CHPRC and MSA to assist with the installation and factory acceptance testing of an interface between the subcontractor's software and records database.

3.2 Special Requirements

The Contractor shall have the following professional experience:

- HSPD-12 credentials
- Minimum of 6 compatible equipment devices for software
- Previous work experience and interfacing with DOE Hanford or Hanford Prime Contractors in cyber security and software
- Local Office: The Offeror shall have and maintain an office within the local vicinity of the Hanford site. Local vicinity is defined as Benton, Franklin and Yakima counties in the State of Washington.
- Response to technical questions within 2 hours
- Response to onsite needs within 12 hours

The Contractor shall provide timely support of problem resolution and implementation.

Examples of assistance needed include, but are not limited to, the following:

- Restoring lost data.
- Implementing data changes in accordance as directed by software owner and approved by the BTR.
- Assisting with any problems with downloading/setting-up the program to Buyers' employee's computers.
- Updating the application software.

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- Supporting, as needed, the development of interface requirements with other software. Support shall be provided on the interface only and not on the development of new software.

3.3 Acceptance Criteria

Work products and services provided shall meet all applicable CHPRC procedures for control and review of work products and pertinent regulatory requirements, as required by this contract and incorporated provisions.

3.4 Organizational Interfaces

The Contractor shall interface with various CHPRC (and other) organizations through the CHPRC Contract Specialist (or designee), as required. The interfaces are:

- CHPRC BTR: Amber Gunter
- CHPRC Point of Contact for technical questions: Jessica Morales
- Project Manager: Jessica Morales

3.5 Work Not Included

Work not included in this Contract includes on-going software maintenance and technical support after software has been field tested and approved and procedure has been issued.

3.6 Buyer Furnished Materials and Equipment

CHPRC will furnish the following materials, equipment and facilities at no cost to the Contractor for use in performing this work scope. The following equipment and materials is a non-inclusive list:

- The following safety equipment as required for Contractor personnel (e.g., eye protection, hard hats, and safety vest).
- Current inspection checklists for facilities, storage area, and other items requiring regular periodic inspections as examples for the AIC checklists.

3.7 Site Conditions and Known Hazards

The Contractor shall comply with all current environmental, safety, and health procedures that apply to companies and persons performing work either on the Hanford Site or on CHPRC controlled premises. If there is a conflict between the provisions of the SOW and the safety and health regulations or procedures, the most stringent provision shall apply.

3.8 Site Coordination Requirements

The Contractor will interface with representatives from CHPRC and MSA for this SOW.

4.0 TECHNICAL REQUIREMENTS

Contractor will perform in accordance with the terms and conditions of this SOW, CHPRC internal policies and procedures, and quality assurance provisions, including safety programs, laws, orders, permits, rules, confidentiality of information and intellectual property safeguards including all applicable:

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- Internal management, accounting, procurement, and record keeping policies and procedures
- Laws, orders, permits, rules, confidentiality of information and intellectual property safeguards

4.1 Work Location / Access Requirements (if applicable)

Work location(s): Contractor office, 200 west CWC, 200 west project office as needed, and Hardware Centers.

5.0 PERSONNEL REQUIREMENTS**5.1 Training and Qualification**

- A. Contractor shall ensure that its personnel meet and maintain the appropriate training, qualification and certification requirements. Hanford site-specific general training requirements to safely perform this work are identified below.
- B. The following types of training/qualifications are required and will be communicated by the BTR in work instructions driven by Employee Job Task Analysis (EJTA):
 1. CHPRC General Employee Training (CGET) or Hanford Site Orientation.
- C. The required training shall be completed prior to work.
- D. Contractor is expected to provide appropriately trained and qualified staff to perform the type of work associate with their trade at the Hanford site.
- E. CHPRC will provide Contractor personnel task or facility specific training as required for site and facility access and safe performance of assigned tasks.

5.2 Security and Badging Requirements

For any on site work, see Special Provisions – On Site Services SP-5 for details.

- The CONTRACTOR shall wear a CHPRC-issued security badge identifying himself/herself. A minimum of two working days advance notice is needed for site badging.
- CONTRACTOR employees will be required to submit to vehicle searches and not personally carry or transport certain prohibited articles.
- If required by this SOW, the CONTRACTOR shall obtain at CONTRACTOR expense a facility clearance and security clearance (e.g., Q, L) for employees prior to obtaining access to the job site.

5.3 Site Access and Work Hours

Work will be done on a 4 x 10 schedule. The standard workday shall consist of ten (10) hours of work between 6:30 AM and 4:30 PM, with one-half hour designated as an unpaid period for

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lunch. No work occurs on the non-working Fridays. If schedule alternative is required BTR will communicate to contractor's contact.

6.0 ENVIRONMENTAL, SAFETY, HEALTH, AND QUALITY REQUIREMENTS

The Contractor shall perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for the safe performance of work. The Contractor shall comply with, and assist CHPRC in complying with Environmental, Safety, Health, and Quality (ESH&Q) requirements of all applicable laws, regulations and directives.

Materials supplied or purchased for use in performance of this contract, to the maximum extent practical, shall be environmentally preferred as described in 40 CFR 247 and including Bio-based products as designated by the USDA. www.biopreferred.gov

The following project-specific ESH&Q requirements are applicable to this scope of work in addition to the requirements identified in the contract [General Provisions](#) and, when work is being conducted on site, the additional ESH&Q requirements in [SP-5 Special Provisions – On-Site Services](#).

7.0 MEETINGS AND SUBMITTALS**7.1 Meetings**

After contract award, the contractor shall participate in a Project Kickoff Meeting, weekly status meetings, which may be a conference call, an internet meeting, or a meeting to be held at CHPRC's Site. The time, date, and agenda for the meeting will be provided to the Contractor by CHPRC.

The Contractor shall interface with various CHPRC (and other) organizations through CHPRC's Contract Specialist (or designated BTR for in-scope work), as required, or at points and frequency determined by the Contract Specialist.

7.2 Submittals

The Contractor submittals identified herein on the Submittal Register shall be submitted by the Contractor using the Contractor Document Submittal Form (CDSF) A-6003-061 (available at <http://www.platauremediation.hanford.gov/index.php/page/10/>). Instructions for completion of the CDSF are included with the form. The quantity, frequency and type of submittal shall agree with the requirements set forth on the Submittal Register. A Submittal Number, entered on the CDSF by the Contractor in accordance with the submittal register, shall be used to identify each submittal. CDSF forms may be copied for submittals with different submittal dates. When any submission is returned to the Contractor with a request for resubmission (i.e., marked as: "B" "Minor Comments – Approved With Exceptions as Corrected Re-submittal Required"; or "C" "Not Approved Revise and Resubmit") the Contractor shall resubmit all corrected documents

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within the time specified on the resubmission notice or if no time is specified therein within five (5) working days from the disposition date. New submittals shall require the Contractor to contact the Contract Specialist if additional Submittal Numbers are required. Changes to a Contractor’s deliverables, that have not been accepted by CHPRC as complete shall be re-submitted using the CDSF form and in accordance with the Contractor’s CHPRC approved Quality Assurance and/or Engineering Program.

- A. The following project control submittals are required within the first month of the contract.
 1. The Contractor shall establish a Work Breakdown Structure (WBS) consistent with the statement of work that will be used as the structure for planning and reporting cost and schedule performance. The Contractor shall propose a specific level within the WBS to be used for monthly reporting purposes.
 2. The Contractor shall provide a Cost Baseline by WBS showing planned expenditures by month through the contract period. The baseline shall provide costs by cost element (labor, materials, other direct costs, etc.).
 3. A cost and schedule status report by WBS shall be submitted monthly with status indicated against the cost and schedule baseline. If schedule impacts occur as the result of cost impacts, the Contractor shall so indicate in a narrative write-up in the monthly report.
 4. The contractor shall provide a Network Diagram and Software and Hardware Specification sheets as part of the Cyber Security requirements to be included in the notification of intent to propose.

Master Submittal Register

Contract Number and Name: Automated Inspection Checklist Application							Revision: 0		
1. No.	2. Type, and Number of Copies	3. Technical Submittal	4. Vendor Information	5. Description / Document Title	6. Submittal Date (Calendar Days)	7. Approver Organizations	8. CHPRC Review Time (Work Days)	9. Contract Paragraph or Requirement Reference	
1	Electronic APW 1 MFC	No	N/A	Work Breakdown Structure	7 days from A	PM	2	7.2.A.1	
2	Electronic AP	No	N/A	Cost Baseline By Month	15 days from A	PM	2	7.2.A.2	

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	1 MFC							
3	Electr onic AP 1 MFC	No	N/A	Monthly cost and schedule status report	1st Tuesday of the month through contract period	PM	1	7.2.A.3
4	Electr onic APW 1 GEN	No	N/A	Network Diagram and Software and Hardware Specification sheets	Include with the notificatio n of intent to propose 2/24/16	PM	2	7.2.A.4

1. Typically a numerical sequence (i.e., 1, 2, 3,...). However, other numbering systems may also be used.
2. Submittal type, number of copies and format:
 - APW** Approval Required Prior to Work (CHPRC must approve the Contractor’s submittal prior to the Contractor being authorized to proceed with any activity/work associated with the submittal)
 - AP** Approval Required (CHPRC must approve the Contractor’s submittal, however, work associated with the submittal may proceed prior to CHPRC approval)
 - Format** Describes the type of submittal required (electronic or printed):
 - DWG** An AutoCAD drawing using the Hanford standard formatting (See CHPRC-00263, *Off-Site Vendor Instructions for the Preparation and Control of Engineering Drawing*).
 - MFC** Microsoft Format Compatible application (Word, Excel, Access, PowerPoint)
 - MPP** Microsoft Project Files
 - P6** A Primavera Project Planner schedule
 - GEN** General or Open Format/Media
 - PDF** Adobe Acrobat (Portable Document Format)
3. Technical submittals are Engineering or Quality affecting submittals. A Yes in this column designates the need for formalized comments, and a formalized comment disposition process by the Contractor. Examples of Technical Submittals would include Engineering or Fabrication Drawings, or Certificates of Conformance.
4. Vendor Information for project record purposes.
5. Description / Document Title. Describe submittal.
6. Required submittal date or its relationship to project milestones. Examples are July 14, 2009, or Award + 15 days, Contract Completion +30 days.

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A	Date of Award
CD	Conceptual Design Complete
PD	Preliminary Design Complete
FD	Final Design Complete
M	Mobilization
SC	Start of Construction
EC	End of Construction

7. Approver Organization. Examples are Construction Manager, Safety, Quality, Radiation Protection and Waste Management.
8. The number of Work Days required for review of the submittal.
9. Contract Reference: Cross reference to the Contract requirement that defines this submittal:

7.3 ATTACHMENTS

- Attachment 1: CHPRC-02820 Rev, 1 *Field Automated Checklist Tracking System (FACTS) Functional Requirements Document*, dated 2/11/16
- Attachment 2: Exhibit - PRC-PRO-IRM-309 Rev 5, Change 0, *Controlled Software Management* Attachment 3: Exhibit - SWSD-PRO-OP-51716 (SW-040-051 Rev 4, Change 1), *Cold Weather Protection Plan*
- Attachment 3: Exhibit - SWSD-PRO-OP-51716 (SW-040-051 Rev 4, Change 1), *Cold Weather Protection Plan*
- Attachment 4: Exhibit - SWSD-PRO-OP-51714 (SW-040-043 Rev 9, Change 9), *Inspect CWC & Miscellaneous Buildings*
- Attachment 5: Exhibit - PRC-PRO-OP-52330 (WMP-200-4.15 Rev 24, Change 2), *SWOC Surveillance Program*