

STATEMENT OF WORK

Requisition #: 292017

Title: Procurement of CO₂ Coulometer, Carbon Furnace, and Acidification Module

Revision Number: 01

Date: 7/26/2016

1.0 Objective

Selection of one CO₂ Coulometer – CM5017 w/ automate emulation mode firmware upgrade (designated for hot persulfate method LA-342-100, emulation firmware part number CM133-106), one CM5300 Horizontal Furnace, and one acidification module (CM5230) for carbon analyses of TOC samples. This instrument is required to support the Hanford site closure mission.

2.0 Background/Introduction

Many of Hanford's closure missions require carbon analyses, both for regulatory characterization of tank waste samples as well as industrial hygiene samples used to assure worker protection. Complete, timely and correct analyses are a key component to Hanford's closure mission.

3.0 Scope

Select an instrument meeting the following:

Performance Specifications

Instrument selection will be based on instrument performance specifications as follows:
Instrument is ready to use.

Instrument detection levels (IDLs) for Carbon must be capable of obtaining Hanford Tank Waste requirements.

- Method of detection must meet the requirements of APHA Method 5310.
- RFI/EMC certification
- No user calibration
- Wide, linear dynamic range
- Readability to 0.01µg Carbon
- User selectable display units
- 10" LCD Touch Screen (screen must be useable with 2 pair latex/ nitrile gloves)
- SD Card data storage
- LIMS compatible
- Compatible with current software

Additional Buyer Considerations

- Space must be allowed for sufficient access to perform all routine operations and instrument control
- Instrument model lifecycle expectation (first date and expected end dates of manufacture and service support)
- Upgradeability for this model and expectations during instrument lifecycle
- Vendor recommended options that make their offering better able to meet analytical requirements as outlined in this statement of work will be evaluated.
- Vendor recommended options for radiological containment specified in this statement of work will be evaluated

Vendor Requirements

- Vendor will build for delivery and perform calibration prior to delivery.
- Vendor will resolve shipment damage if required.
- LCS check standards demonstration and data used to determine acceptance on the instrument and installation.
- Vendor to provide information on available service contracts, including cost, coverage and response time.

Vendor Software Questions

- What operating systems are supported?
- What country was the software written in?
- Are local administrator rights required to run the software?
- What computing language is the software written in?
- Are there any other programs or libraries that must be on the computer in order for your software to function?

Buyer Requirements

- Buyer to provide electrical intrusions through the bench top that match seller's pre-installation requirements
- Buyer will make instrument tie-ins
- Instrument and accessories will be drop shipped to 222-S laboratory. Buyer and their agents will inspect for damage on receipt of instrument and seller will resolve any concerns with buyer before transfer of the instrument into the 222-S laboratory (hold point)
- Buyer will perform instrument installation.

4.0 Submittals

[In support of the work scope established in Section 3.0 above, submittals are listed on the Master Submittal Register \(MSR\).](#)

[Submittals shall be provided using the TOC Incoming Letter of Transmittal \(form A-6005-315\). All transmittal subject headings shall contain, at a minimum, the subcontract number, submittal number, and submittal description.](#)

[Submittals shall be provided in electronic format unless available only as a hard copy. Electronic submittals may be sent to TOCVND@rl.gov or delivered via a WRPS designated File Transfer](#)

Protocol (FTP) site. Electronic formats must be non-password protected in one of the following formats:

- [Microsoft® Office Compatible](#)
- [Portable Document Format \(PDF\)](#)
- [Tagged Image File Format \(TIFF\)](#)
- [Graphics Interchange Format \(GIF\)](#)
- [Joint Photographic Experts Group \(JPEG\)](#)
- [Windows Media Video \(WMV\)](#)
- [Moving Picture Expert Group \(MPEG\)](#)
- [Extensible Markup Language \(XML\)](#)
- [HyperText Markup Language \(HTML\)](#)
- [Comma Separated Values \(CSV\)](#)
- [Text \(TXT\)](#)

~~No submittals are expected as part of this scope.~~

5.0 Acceptance Criteria

- IDL's will be established between buyer and vendor
- Certification of National Electric Code by a Nationally Recognized Testing Laboratory (NRTL) completed prior to shipment. All electrical work must comply with NFPA 70-1999 National Electrical Code. The suitability of electrical equipment shall be evidenced by listing, labeling, acceptance, certification by NRTL that is recognized by OSHA under 29 CFR 1910 Subpart S. Must be documented to buyer before shipment
- Shipment Inspection completed on receipt (hold point if damaged).
- Vendor resolution of damage completed
- Vendor oversight of on-site installation and performance of IDL's by buyer
- Completed onsite operator training
- Completed onsite maintenance training

Unless otherwise approved by Tank Operations Contractor (TOC), All electrical control panels and electrical equipment [a general term including material, fittings, devices, appliances, luminaries (fixtures), apparatus, and the like, used as a part of, or in connection with, an electrical installation] delivered or brought onto the site in performance of this subcontract must be listed or labeled by an organization currently recognized by OSHA as a nationally recognized testing laboratory.

6.0 Configuration Management and Standards

6.1 Configuration Management Requirements

There are no specific Configuration Management requirements applicable to this SOW.

6.2 Applicable Standards

- Instrument and electrical components must have National Recognized Testing Laboratory Certifications before shipment.

7.0 ESH&Q Requirements

7.1 Quality Assurance Requirements

The work activities for this statement of work have been designated as Enhanced Quality QL-3.

7.1.1 Supplier Quality Assurance Program

The Subcontractor's Quality Assurance Program shall be subject to review at all times, including prior to award.

7.1.2 Supplier Quality Assurance Program Changes

The Subcontractor shall, during the performance of this subcontract, submit proposed changes to their approved quality assurance program to the WRPS Buyer for review and concurrence prior to implementation.

7.1.3 Quality Assurance Oversight

WRPS personnel will coordinate with the supplier to conduct scheduled and periodic oversight of activities or products associated with this scope of work.

7.1.4 Quality Assurance Requirements for Analytical Laboratory Services

Subcontractors not on the Hanford Site shall have an implemented quality assurance program that complies with the DOE's Consolidated Audit Program (DOECAP) most recent version of the Department of Defense/DOE Quality Systems Manual (QSM) for Environmental Laboratories

(http://www.oro.doe.gov/DOECAP/uploads/docs/DOE_DoD_Quality_Systems_Manual.pdf).

Subcontractor quality assurance programs shall comply with DOE/RL 96-68 Hanford Analytical Services Quality Assurance Requirements Documents (HASQARD), Volume 1 and 4, Revision 3 (<http://www.hanford.gov/page.cfm/AnalyticalServices>).

7.2 Price-Anderson Amendments Act Requirements

This 7.2 section and the General Provisions Article 2.11 entitled, *Price-Anderson Amendments Act (PAAA)*, are both determined to be *not applicable*.

Subcontractor personnel shall be trained to the nuclear safety rules consistent with their specific position and assigned work.

7.3 Special ESH&Q Requirements

Preliminary hazard assessment PHA ID: 32 is to be used for general office duties performed in TOC-controlled office facilities and/or observations/walkthroughs in tank farm non-radiological and controlled radiological areas, including soil contamination areas and buffer areas, requiring a General (Not Specific) Radiological Work Permit (RWP) only. Only observation activities are allowed (no hands-on work activities may be performed). Ladder/scaffolding access is not allowed. Prior to performing any other activities, a Job Hazard Analysis (JHA) must be completed to cover the activities to be performed. The JHA must be approved by a TOC Safety Representative.

8.0 Verification/Hold Points

Hold Points:

- Electrical inspection certification received and approved before shipment
- Receipt damage inspection reported by buyer
- On-site IDL's determination completed by buyer to buyer's acceptance

9.0 Reserved

N/A

10.0 Work Location/Potential Access Requirements

Carbon analyzers will be installed on Department of Energy Nuclear reservation in the 200 West Area, 222-S Facility. Access to this location is restricted and vendor personnel must meet access requirement of security with an "O" level clearance, General Employee Radiological Training (GERT) and Visitor/Vendor training. The laboratory is a Radiological Control Area and dosimetry is required and will be provided by the Buyer. Access is limited to Monday –Thursday 7:00 A.M. - 4:30 P.M. and alternate Fridays 7:00 A.M. - 3:30 P.M.

11.0 Training

- Analytical operation training

12.0 Qualifications

- Oversight of installation will be performed by experienced personnel from the vendor. Minimum experience to be at least three successful installations of model and accessories purchased
- Must have a "O" security clearance from Department of Energy
- Must meet ESH&Q requirements in Section 7 of this Statement of Work

13.0 Special Requirements

Use of Government Vehicles

There is no anticipated need for any Subcontractor employees to use a Government-furnished vehicle in the performance of this statement of work. The Subcontractor's employees, therefore, are specifically prohibited from driving any Government-furnished vehicles under the performance of this statement of work unless this statement of work is formally so modified by the parties and the employee(s) will present a valid driver's license to the BTR for review.

14.0 Reporting/Administration

- Monthly status report from vendor after the placement of instrument order
- IDL on-site results
- Issues identified requires weekly update until closed.
- Onsite training courses syllabi review prior to presentation
- Single point of contact identified by vendor and single point of contact identified by WRPS to administer this project

15.0 Workplace Substance Abuse Program Requirements

A Workplace Substance Abuse Program is not required for this SOW.