



United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number
2-3

Original Amendment Number:

Contract Number
EP-W-09-021

Contract Period
Base Option Period Number II

Title of Work Assignment
Account and Allowance Management System for
Cap & Trade Programs

Contractor
SYSTEMS RESEARCH AND APPLICATIONS CORPORATION

Specify Section and Paragraph of Contract SOW

Purpose: Work Assignment Initiation Work Assignment Close-Out
 Work Assignment Amendment Incremental Funding
 Work Plan Approval

Periods of Performance

From: 05/18/11

To: 04/14/12

Comments:

The contractor shall prepare a work plan and cost estimate in accordance with the attached Statement of Work. The contractor shall perform no work beyond preparation and submission of the work plan and cost estimate, until the work plan and cost estimate are approved.

Superfund

Accounting and Appropriations Data

Non-Superfund

Line	DC (Max 6)	Budget/FYs (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee	LOE
Previously Approved	\$0.00	0
This Action	\$0.00	11,360
Total	\$0.00	11,360

Work Plan / Cost Estimate Approvals

Contractor WP Dated : Cost/Fee: LOE:
Cumulative Approved: Cost/Fee: LOE:

Work Assignment Manager Name

Branch/Mail Code

PAULA BRANCH

Phone Number

(Signature)

(Date)

Fax Number

Project Officer Name

Branch/Mail Code

RYAN T. DANIELS

Phone Number

(Signature)

(Date)

Fax Number

Other Agency Official Name

Branch/Mail Code

DEBRA A. MILLER

Phone Number

(Signature)

(Date)

Fax Number

Contracting Official Name

Branch/Mail Code

DEBRA A. MILLER

Phone Number

(Signature)

(Date)

Fax Number

Contractor Acknowledgement of Receipt and Approval of Workplan (Signature and Title)

Date

**WORK ASSIGNMENT
STATEMENT OF WORK**

Title: Account and Allowance Management System for Cap & Trade Programs

Contract No.: EP-W-09-021

Work Assignment No.: 2-3

Estimated Level of Effort: 11,360

EPA Key Personnel:

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I. BACKGROUND AND PURPOSE

The U.S. Environmental Protection Agency (EPA) has significant experience developing allowance management and tracking systems for cap and trade programs. EPA's systems, including CAMD Business System (CBS), the Emission and Allowance Tracking System (EATS), and their predecessors, have been successfully used to administer a number of cap and trade programs in the US and other countries. In an effort to facilitate the efficient and effective implementation of non-EPA cap-and-trade programs, EPA, working with state partners, is adapting a generic account and allowance management and tracking systems to facilitate the operation of one or more cap-and-trade programs.

The primary purpose of this work assignment (WA) is to adapt an existing a cap-and-trade account and transaction registry to accommodate the following:

- Program creation, including transaction rules (e.g., transaction and/or holding limits) and compliance rules (e.g., limits on use of specific allowance or offset types, allowance retirement procedures, allowance penalties, compliance ratios);
- Account management for compliance entities, including industrial sources and non-emitting units (e.g., load-serving entities);
- Account management for non-compliance entities, including registry administrators, government agencies or representatives, brokers, NGOs, and private citizens;
- Allowance issuance and management of one or more types of allowances (e.g., normal allowances, linked-program allowances, price containment allowances);
- Offset project tracking for project registration, review, approval, crediting; and auditing;
- Offset credit issuance of one or more types of offset credits;
- Allowance and offset ("compliance instruments") transaction tracking (e.g., allocations, auction sales, transfers, retirements, cancellations, reversals);
- Compliance determination;
- Reporting and analysis; and
- Other features necessary to support a cap and trade program.

To facilitate use of the system by one or more administrative organizations for one or more cap-and-trade programs, the registry system should be designed to:

- Facilitate the management of one or more cap-and-trade programs;
- Adapt easily to program changes with minimal programming effort;
- Provide a reliable and easy-to-use web interface for account holders/representatives and government staff;
- Facilitate communication with relevant parties about changes to account information, transactions, and compliance status (e.g., email notifications to relevant account administrators when a transaction has been submitted or processed);
- Enable the use of different interfaces for different cap-and-trade programs (e.g., program-specific 'skins' or style sheets);
- Comply with all accessibility and usability requirements defined by law and the EPA WAM;
- Display the interface in a user-selected language (i.e., provide text labels and context help in multiple languages);
- Prohibit account actions and allowance transactions that do not adhere to the program rules unless approved by government staff with the necessary user role;
- Facilitate intra- and inter-registry transactions through a standard communication protocol;
- Ensure data integrity and security; and
- Ensure confidential information is protected.

II. CONTRACT LEVEL STATEMENT OF WORK REFERENCE

The tasks to be performed under this work assignment are consistent with the areas of analyses authorized in Section III, Task F, (a) through (i) of the contract's Statement of Work.

III. STATEMENT OF WORK TASKS

TASK 1: Work Plan

The Contractor shall prepare a work plan and cost estimate in accordance with the terms and conditions of contract clauses B.2 entitled Work Assignments and B.3 entitled Preparation and Submission of Work Plans. The contractor shall propose specific, well-defined, written performance standards for measuring and assessing the quality, quantity, and timeliness of service and products. The work plan shall include an appendix with detailed information about licensing and rights to the software, code, and documentation.

TASK 2: CAMD/ARB Technical Group Support

Working in consultation with the Work Assignment Manager (WAM) and the CAMD/ARB Technical Group, the contractor shall participate in activities in support of the registry project. The following subtasks apply:

Subtask 2.1: Meetings with CAMD/ARB Technical Group

The contractor shall participate in discussions with CAMD/ARB Technical Group at least once per month and provide technical support relating to technical architecture and application design and implementation.

Subtask 2.2: Logical and Physical Design Documents, and User Manuals and Technical Documentation for the Registry

The contractor shall support the development of policies, standards, and procedures for this project to adapt an existing registry system. Procedures may take the form of written or on-line guidance or software applications to facilitate the process. The contractor shall develop or modify User Manuals and Technical Documentation for all systems (unless otherwise directed), and Logical and Physical Design Documents as the registry modules are approved by the WAM.

Subtask 2.3 Project Schedule

The contractor shall work in coordination with the WAM and CAMD/ARB Technical Group to maintain a project schedule, defining detailed tasks, timing, and estimated/actual hours for each task and subtask area defined in this work assignment. The schedule will be updated, based on input from the WAM and CAMD/ARB Technical Group, and delivered to WAM at least monthly.

Subtask 2.4 Project Portal

The contractor shall create a secure project portal/web environment where the members of the CAMD/ARB Technical Group can post and review documentation (e.g., requirements, project plans, schedules, software bugs and resolutions, test plans, test results), software code, and other relevant materials. The contractor shall post information to the portal in a timely manner.

TASK 3: Program Management

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall define and provide Program Management functionality in the registry system. Development shall include producing a schedule, requirements analysis, application design, and a quality assurance test plan in addition to a fully-tested Program Management module. The Program Management module will be used by administrative staff to support one or more cap-and-trade programs and define the rules, including trading constraints and compliance requirements, for each program.

TASK 4: Account Administration

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall define and provide Account Management functionality in the registry system. Development includes producing a schedule, requirements analysis, application design, and

quality assurance test plan, as well as a fully-tested Account Administration module. The following subtasks apply:

Subtask 4.1: User Registration

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall provide a User Registration sub-module to register and manage user information. The User Registration sub-module should allow for different types of users (i.e., roles) with different responsibilities, data access, restrictions, and security requirements. It should allow for easy and secure updating of the information (e.g., contact information, affiliations) by account owners and program administrators. It should allow for notifications to account owners and program administrators when information changes.

Subtask 4.2: Account Creation

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall provide an Account Creation sub-module to create and maintain accounts, including entity and people relationships. It should allow for different types of accounts with different rules, features, and transaction restrictions. It should allow for program administrators to initiate, approve, or deny account creation.

Subtask 4.3: Account Suspension, Reinstatement, and Closure

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall provide an Account Management sub-module to manage account status (e.g., open, suspended, closed). The account status may affect the functionality of the account (e.g., suspended accounts cannot transfer allowances) through rules established in the Program Management module (or similar component.)

TASK 5: Allowance Management

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall define and provide Allowance Management functionality in the registry system. Development includes producing a schedule, requirements analysis, application design, and quality assurance test plan, as well as a fully-tested Allowance Management module. The following subtasks apply:

Subtask 5.1: Allowance Issuance and Conversion

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall provide an Allowance Issuance sub-module to issue a specified number of serialized allowances.. The issuance functionality should include the ability to issue different types of allowances (e.g., standard allowances, linked-program allowances, price containment allowances) and, when appropriate, convert an allowance's type (e.g., a standard allowance to a price containment allowance.)

Subtask 5.2: Allowance Status Management

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall provide an Allowance Management sub-module to manage allowance status (e.g. suspended or frozen). The allowance status may affect the functionality of the account (e.g., suspended allowances cannot be transferred) through rules established in the Program Management module (or similar component.)

Subtask 5.3: Allowance and Offset Transaction Registration

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall provide a secure Allowance Transaction sub-module to record allowance and/or offset transactions (e.g., allocation, auction, private transfer, retirement, cancelation, reversal). The system must record all official transactions and include relevant transaction information – transaction type, parties involved, allowances/offsets transferred, and other information as necessary (e.g., dates, price, market). Where relevant, the Allowance Transaction sub-module may require transactions be delayed for a set amount of time or require confirmation from the transaction party(ies). If a transaction does not conform to program-specific rules (e.g., limits on the use of offsets for compliance purposes), the Allowance Transaction sub-module shall notify the transaction party(ies).

TASK 6: Offset Management

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall define and provide Offset Management functionality in the registry system. Development includes producing a schedule, requirements analysis, application design, and quality assurance test plan, as well as a fully-tested Offset Management module. The following subtasks apply:

Subtask 6.1: Offset Creation

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall provide an Offset Creation sub-module to issue serialized offsets based on the verified GHG reductions achieved by an offset project. The Offset Creation functionality should include the ability to issue different types of offsets (e.g., standard offsets, sector offsets).

Subtask 6.2: Offset Project Tracking

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall provide an Offset Project Tracking sub-module to manage the workflow of an offset project through the various approval and review steps (e.g., registration or listing, monitoring and reporting, verification, approval, offset crediting or issuance, and invalidation.)

Subtask 6.3: Offset Invalidation

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall provide an Offset Reversal sub-module to invalidate or cancel offsets held in allowance accounts if the administrative authority deems an offset credits invalid. Cancellation may require deducting the offsets from holding or retirement accounts and identifying the offsets as 'invalidated'.

TASK 7: Compliance Management

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall define and provide Compliance Management functionality in the registry system. Development includes producing a schedule, requirements analysis, application design, and quality assurance test plan, as well as a fully-tested Compliance Management module. The following subtasks apply:

Subtask 7.1: Emission Importing

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall provide an Emission Importing sub-module to import emission data reported by affected sources subject to compliance obligations into the registry.

Subtask 7.2: Compliance Assessment/Reconciliation

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall provide a Compliance Assessment/Reconciliation sub-module to determine the compliance status of affected sources subject to compliance obligations. The assessment should consider all program rules and restrictions (e.g., offset use limits, allowance vintage requirements for different allowance types) and provide administrative staff the ability to conduct compliance assessment simulations (i.e., determine which sources are and are not in compliance) and compliance reconciliations involving the retirement of allowances from each source's compliance account.

Subtask 7.3: Compliance Penalty Deduction

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall provide a Compliance Penalty Deduction sub-module to deduct allowances for non-compliance (based on program rules established in the Program Management module or similar component) and, when necessary track financial penalties for non-compliance (e.g., penalty levied, payment pending, payment processed).

TASK 8: Transaction and Compliance Reporting

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall define and provide Transaction and Compliance Reporting functionality in the

registry system. Development shall include producing a schedule, requirements analysis, application design, and quality assurance test plan in addition to a fully-tested Transaction and Compliance Reporting module. The Transaction and Compliance Reporting module will be used by administrative staff and other oversight staff to understand the cap-and-trade programs' participants, market activity, account and transaction activity, emissions, progress, compliance status, and adherence to program rules, as well as provide relevant information for other market and compliance analyses.

TASK 9: Registry Administration

Working in consultation with the WAM and the CAMD/ARB Technical Group, the contractor shall define and provide Registry Administration functionality in the registry system. Development includes producing a schedule, requirements analysis, application design, and quality assurance test plan, as well as a fully-tested Registry Administration module. The Registry Administration module will be used by administrative staff to manage the registry system. Functionality would include, but is not limited to, user ID and password management, email notification rules and messaging for confirmation of actions (e.g., person account edits, allowance transactions), text label management, audit logging, contextual help, security (e.g., user roles and responsibilities), and data management.

IV. DELIVERABLES

TASK 1: Work Plan - in accordance with clauses B.2 and B.3 of the contract

ADDITIONAL TASKS:

<u>Task #</u>	<u>Deliverable</u>	<u>Due Date</u>
2.1	Participate in CAMD/ARB tech meeting	Monthly
2.3	Project Schedule	Monthly
2.2	Logical & Physical Design, User Manuals & Technical Doc	As specified in the project schedule
3	Program Management	As specified in the project schedule
4	Account Management	As specified in the project schedule
5	Allowance Management	As specified in the project schedule
6	Offset Management	As specified in the project schedule
7	Compliance Management	As specified in the project schedule
8	Reporting Functionality	As specified in the project schedule
9	Administrative Functionality	As specified in the project schedule
	Meeting minutes	Five working days after each meeting
	Requirements & testing documentation	Ongoing with each module or sub- module

Distribution of Deliverables

Addressee Copies

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