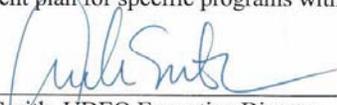


UDEQ QMP
Final
10-04-2010

QUALITY MANAGEMENT PLAN
Utah Department of Environmental Quality
October, 2010

DEQ Authority and Concurrence

This QMP has been authorized by the Executive Director as the quality policy and quality management plan for specific programs within the Utah Department of Environmental Quality.



Amanda Smith, UDEQ Executive Director

10-7-2010
Date

EPA Approval

This QMP satisfies the quality system documentation requirements of 40 CFR parts 31 and 35 as conforming to the American National Standard ANSI/ASQC E4-1994, *Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs*.



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10/12/10
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QUALITY MANAGEMENT PLAN

SECTION 1. ORGANIZATION AND MANAGEMENT

1.1 Document Purpose

This Quality Management Plan (QMP) describes UDEQ quality management processes that are used to maintain a Quality System (QS). Its purpose is to provide a management strategy that assures that environmental data developed by, or submitted to, UDEQ are of a high quality, sufficient quantity, are appropriately documented, and scientifically and legally defensible.

1.2 Statement of UDEQ Quality Assurance Policy

1.2.1 Definition of QA and QC

Quality Assurance (QA) is an integrated system of management activities involving planning, implementation, assessment, reporting, and quality improvement to ensure that a process, item, data, or service is of the type and quality needed and expected by the decision makers and the public.

QA is implemented through:

- delineated responsibilities;
- Quality Assurance Project Plans (QAPPs);
- Training.

Quality Control (QC) is the overall system of technical activities that measures the attributes and performance of a process, item, or service against defined standards to verify that the process meets the stated objectives and/or requirements. QC is typically implemented on a project-by-project basis through the alignment with program QAPPs.

1.2.2 Importance of QA and QC

UDEQ goals regarding environmental contaminants are to:

- identify the presence of contaminants in areas of potential exposure to humans and the environment;
- determine impacts on human health and ecosystems;
- determine whether, how, and by whom such impacts should be remediated; and,
- monitor compliance with environmental regulations.

The data quality ensures the scientific credibility of the information upon which decisions are based. Proper QA enhances proper planning, reducing the likelihood of duplicate or repetitive sampling and thereby reduces costs.

1.2.3 Objectives of QA and QC

Environmental data collected by UDEQ are generally intended for input to a decision process. Because our mission is to protect human health and the environment, it is imperative that decisions be supported by environmental data of high quality and sufficient quantity, be appropriately documented, and be scientifically and legally defensible.

The Quality System is designed to encourage, monitor, and assure that environmental activities are well planned and address the project needs and objectives. It also seeks to ensure that environmental data produced are of known quality and of the type, quantity, and quality needed for their intended use.

The objectives of this QMP are to:

- encourage the use of QA and QC principles in the management of environmental projects;
- facilitate the timely identification, improvement, and/or correction of problems and QA systemic weaknesses;
- identify UDEQ staff training needs; and,
- provide for continuous improvement in project operations.

1.3 Organization and Responsibilities

1.3.1 DEQ Organization and Data Generation

UDEQ is organized as follows:

Executive Director's Office (EDO)

- Human Resources (HR)
- Information Technology Services (ITS)
- Planning and Public Affairs (PPA)
- Office of Support Services (OSS)

Division of Air Quality (AQ)

Division of Drinking Water (DW)

Division of Environmental Response and Remediation (ERR)

Division of Radiation Control (RC)

Division of Solid and Hazardous Waste (SHW)

Division of Water Quality (WQ)

As illustrated in Figure 1, each Division and Office is headed by a Director who reports to the Executive Director. Each Division organizes staff into programs.

The Executive Director's Office is responsible for oversight of the Quality System as described in this QMP. The Divisions of Air Quality, Solid and Hazardous Waste, and Water Quality, and the Superfund and Tank Programs within the Division of Environmental Response and Remediation have QAPPs, developed in accordance with the requirements presented in this QMP. Each is responsible for its QAPP preparation, implementation, and assessment.

UDEQ may contract for environmental services in fulfillment of duties delegated by State Law. In such circumstances, the requirements presented in this QMP also apply to those acquired contractual services.

1.3.2 Position and Authority of QPC and Quality Assurance Committee

The Quality Process Coordinator (QPC) responsibilities are assigned to the Business Assistance position, located in the Office of Planning and Public Affairs. (See Figure 2.) The QPC operates independently of direct environmental data generation and model and technology development. The QPC works directly with a representative from each Division or program with a QAPP to form a Quality Assurance Committee (QAC). Ideally, those serving on the QAC will have been involved in drafting the QAPP for their program or Division. This reporting relationship provides the QAC with sufficient authority to assure independent oversight.

The minimum qualifications of the QPC position and for those serving on the QAC are a Bachelor's degree in physical, environmental, chemical, or biological sciences or engineering and five years experience in the environmental health field, two years of which involves environmental field testing or laboratory analyses and/or equivalent combinations of education and experience which indicates a thorough knowledge of UDEQ requirements and testing and QA/QC procedures.

1.3.3 Management and Staff Responsibility for QA

The primary responsibility for QA resides with each staff member, particularly those who are assigned as Designated Project Managers (DPMs). Quality Control, the oversight and improvement of QA implementation and performance, is vested with DPMs, Section and Branch managers, and Division Directors.

In the case of grants, cooperative agreements, and similar instruments in which UDEQ awards money to a second party for the performance of environmental work, the DPM who has oversight shares responsibility for implementation of a QS with the award official.

Program managers report to the director of the Division in which they are located, and generally provide leadership and supervision to staff. Program Managers are responsible for identifying environmental projects for which QA and QC are needed.

The DPM is the staff member responsible for a specific project and has immediate managerial or technical control of that project. The DPM is responsible for specifying the quality of the data required for each project. The DPM may also be a program manager.

1.3.4 Resources

Program managers, together with DPMs, must determine the resources needed to assure that an adequate level of QA and QC is achieved for all projects within their respective programs. Division directors assure adequate resources in their management and budgeting strategies.

1.4 Types of Activities Specifically Covered by QMP

This QMP applies to all activities that are covered by a Division or Program QAPP and that generates or obtains data that characterize or assess environmental media, effluents, and waste. Certain data collection activities are not covered. These are listed in Section 1.4.5.

Whenever these activities are performed by UDEQ personnel or contractors, the DPM has full responsibility for ensuring that all QA and QC requirements are met. When such activities are performed with UDEQ funds, the DPM is responsible for ensuring that the receiving organization complies with all relevant requirements.

For activities performed by members of the regulated community that do not use UDEQ funds, DPMs are encouraged to include UDEQ QA and QC requirements as part of any negotiated agreement in the absence of regulatory requirements that would take precedence.

Section 2 of this document identifies the specific UDEQ QS applicable to each of the identified categories. The environmental activities included in each category are discussed in the sections that follow.

1.4.1 Data Generated by Field Sampling and Laboratory Analysis

Environmental media samples for chemical, physical, radiological, or biological analyses are commonly collected and analyzed to accomplish the following goals:

- Confirm the presence or absence of pollutants or contaminants.
- Determine concentration levels of various sample components.
- Delineate the horizontal and vertical distribution of various sample components.
- Evaluate rate and direction of transport of various sample components.
- Determine eventual fate of the identified pollutants.
- Determine the baseline and background concentrations of various sample components.
- Determine the effectiveness of treatment strategies.
- Identify pollution and contamination sources.
- Establish temporal and spatial trends.
- Monitor change.
- Evaluate progress.
- Evaluate compliance with environmental regulations.

Covered activities may include the generation of environmental data, including field work for the purpose of collecting samples for later chemical, physical, radiological, or biological analyses; the collection of in situ measurements; field work for site reconnaissance; and compliance inspections.

Sampling activities may be conducted for site characterization, for ongoing monitoring projects, or during remediation and removal activities.

Data may be collected for risk screening and/or assessment calculations incorporating exposure to humans, ecosystems, and the environment. Such risk calculations may be used in any UDEQ program as appropriate or required by regulation or policy. Data collection activities conducted must be adequately addressed in a QAPP, which includes data quality objectives (DQOs). The required elements for QAPPs are discussed in Section 3.1 of this document, and suggested additional elements are listed in Chapter 8.0.

1.4.2 Data Generated Through Computer Modeling

UDEQ decision makers may use data generated from computer models of environmental behavior that have been developed internally and/or by outside sources. The QS for control of model generated data is discussed in Section 3.

1.4.3 Data Collected from Outside Sources and Databases

UDEQ decision makers may use information and data from outside sources or databases. Examples of such data include - but are not limited to - toxicological, historic stream characteristics and flows, climatological, meteorological, and exposure data, emissions inventories, and field data collected by a regulated party.

When data from outside sources are used, staff are encouraged, whenever possible, to obtain and review the QA and QC practices that were followed during the original data generation. In addition, any data used for purposes other than originally intended must also be reviewed to ensure suitability for the new application.

1.4.4 Activities Not Covered

The environmental sampling or data collection activities which are not covered by this QMP are:

- data collected only for safety or workplace regulations;
- collection of employee monitoring data; and,
- data generated by regulated entities outside of the oversight and/or funding of UDEQ.

1.5 Policy on Cooperative Projects and Sites

UDEQ, on occasion, uses external entities for the collection and analysis of environmental samples and data that are later used for decision making. The activities of these entities are managed through grants, cooperative agreements, interagency agreements, or contracts.

Examples of external entities include - but are not limited to - potentially responsible parties, state and local agencies, and UDEQ contractors. Oversight may be conducted through periodic reviews by UDEQ staff.

Specific requirements for environmental sampling or data collected by outside entities that receive UDEQ funding are:

- Agreements and contracts with State agencies, universities and academic institutions, tribes, and communities shall require that Standard Operating Procedures (SOPs) for environmental sampling be prepared.
- If work by a private party is required under an enforcement agreement, the enforcement agreement should detail the QA and QC roles of UDEQ and the party.
- If work by a private party is voluntary (no formal or enforcement agreement) and will be provided to UDEQ for acceptance, UDEQ review and approval of the work's QA is suggested to avoid misunderstandings of the work's goal and data usage. The private party has the right to proceed without such approval, but UDEQ can decide not to use the data, if the data are judged as not adequate to support the proposed use.

1.6. Document Distribution

This QMP will be posted on the UDEQ website and its availability will be noticed to UDEQ employees. Posting it on the website will also make it accessible by interested members of the public.