Frequently Asked Questions:
Uniform Federal Policy for Quality Assurance Project Plans

Scope & Applicability

(1) What is the Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP?)

The UFP-QAPP is a comprehensive planning document that includes all project quality assurance elements described in ANSI/ASQ E4-2004. A QAPP prepared according to the UFP-QAPP addresses the complete scope of a project, from planning through implementation, assessment, data validation and verification, data usability, and reporting. In addition to analytical laboratory performance, it includes development of data quality objectives (DQOs), sampling design, field sampling activities, and data review. When used in its entirety, it will result in compliance with both EPA QA/R-5 and EPA QA/G-5 for environmental data collection efforts.

(2) Is a Quality Assurance Project Plan (QAPP), prepared in accordance with the Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP) http://www.epa.gov/fedfac/pdf/ufp_qapp_v1_0305.pdf), equivalent to a Sampling and Analysis Plan (SAP) as defined in the National Oil and Hazardous Substances Contingency Plan (NCP) (40 CFR 300)?

If a QAPP is prepared in accordance with the UFP-QAPP, and it addresses all 37 original (or 28 optimized) worksheets, then it will address all required content of a SAP, as described in the NCP. According to the NCP Sections 300.415(b)(4) and 300.420(c)(4), a SAP consists of a Field Sampling Plan (FSP), which describes the number, type, and location of samples and the type of analyses, and a QAPP, which describes policy, organization, functional activities, and the DQOs and measures necessary to achieve adequate data quality.

EPA Memorandum, December 21, 2005 from the Director, Federal Facilities Restoration and Reuse Office (FFRRO) to the Environmental Protection Agency (EPA) Regional Science and Technology Directors, Office of Solid Waste and Emergency Response (OSWER), and Department of Defense (DoD) approved the UFP-QAPP for use at Federal facility hazardous waste sites.

(3) To what specific programs or projects does the UFP-QAPP apply?

When EPA and DoD signed the UFP-QAPP in 2005, they adopted the UFP-QAPP for environmental data collection activities performed in support of hazardous waste programs at Federal facilities. OSWER Directive 9272.0-17, June 7, 2005 states that the UFP-QAPP applies to environmental data collection at Federal facilities related to hazardous waste investigations (e.g., cleanup under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA)), as well as data collection related to the active management of hazardous waste generated by RCRA facilities. Federal facilities include Base Realignment and Closure (BRAC) facilities, formerly used defense sites (FUDS), and formerly utilized sites remedial action program (FUSRAP) sites. The Directive further states that compliance with the UFP-QAPP "will be considered to be adequate conformance with EPA QA/G-5 and any Regional guidance on the preparation of QAPPs."

Citing the OSWER Directive, the Assistant Deputy Under Secretary of Defense (ESOH) issued a memorandum on April 11, 2006 requesting that DoD Components begin immediate implementation of the UFP-QAPP for DoD hazardous waste sites involving CERCLA, RCRA, and Brownfields-type projects. While not mandatory, the memorandum also encouraged its use for other environmental data collection activities (e.g., compliance monitoring).

On July 9, 2009, the Air Force Center for Engineering and Environment (AFCEE) began requiring use of the UFP-QAPP for any new restoration projects funded through the Restoration Program Management Office.

Many other DoD component activities and EPA regions now require the use of the UFP-QAPP. For example, it is gaining more use and acceptance in the Military Munitions Response Program (MMRP). Users of the UFP-QAPP should verify any requirements with their DoD clients and regulatory agencies.

Although the Department of Energy participated in the development of the UFP-QAPP, it has not formally adopted the policy. Each DOE program line organization and field element site determines whether the UFP-QAPP applies; however, environmental remediation and restoration projects on DOE field sites that have been identified by EPA as National Priority Listing (NPL) sites will require a QAPP.

(4) Could a UFP-QAPP be prepared for prescriptive sampling events such as an underground storage tank (UST) pull or permit-required compliance sampling?

Yes. EPA requires a QAPP for any project involving the collection or use of environmental data. While the UFP-QAPP policy itself was developed for hazardous waste programs conducted at Federal facilities, the format can be adapted to other environmental investigations. This would include activities (e.g., tank pulls) conducted under the RCRA/UST regulations as well as other compliance monitoring conducted under the RCRA, the Clean Water Act (CWA), or Safe Drinking Water Act (SDWA).

It should be noted that for prescriptive sampling events, i.e., those for which sampling designs are specified in the permit or the regulation, certain activities and worksheets presented in the UFP-QAPP may not be applicable. Even where specific sampling procedures are prescribed, however, it is still important to describe quality assurance (QA) and quality control (QC) activities that will be conducted to make sure the collected data meet project-specific data quality requirements and can be used as intended. The UFP-QAPP worksheets are useful tools for describing these activities.

In the case of prescriptive sampling events, one approach could be to develop a “generic” or program-wide UFP-QAPP, which describes, for example, 1) general specifications applicable to the entire program or 2) all compliance sampling activities at a particular facility; and then supplement the generic QAPP with project-specific UFP-QAPP worksheets describing activities and specifications

applicable to each specific sampling event. Together, the generic and project-specific QAPPs must address all required elements of the UFP-QAPP.

(5) Why is the use of the UFP-QAPP worksheet format recommended or required?

The UFP-QAPP Manual itself does not require use of the worksheets; however, project teams should consult with their clients and regulators, as certain organizations may specifically require use of the UFP-QAPP worksheets.

Worksheet use is recommended for several reasons: 1) During development of a UFP-QAPP, they are useful as tools to guide project teams through the systematic planning process. 2) Worksheet use promotes consistent organization of information so that users, reviewers, and other stakeholders know where they can find it. 3) The worksheet format can be easily updated when there are changes in procedures or specifications. 4) Worksheet use ensures that the document addresses all the required elements of ANSI/ASQ E4-2004. The worksheets may be modified as necessary to suit project-specific requirements; however, all worksheets should be completed, or an explanation should be provided for their exclusion.

(6) Why were the worksheets optimized? May the original 37 UFP-QAPP worksheets still be used? Both the "old" (original) and "new" (optimized) worksheets may be used. Both sets of worksheets are available on the EPA Federal Facilities Restoration and Reuse Office (FFRRO) website. (http://www.epa.gov/fedfac/documents/qualityassurance.htm). Project teams familiar with the use of the original 37 worksheets may find it easier to continue to use them. Regardless of which format is used, all required elements of the UFP-QAPP must be addressed.

Based on the experience and feedback from users, the IDQTF acknowledged that some of the original 37 worksheets were cumbersome to use. The IDQTF subsequently tasked the Optimization Subgroup with reviewing and updating the worksheets to improve their ease of use. This resulted in the generation of the "optimized" worksheets: a series of 28 worksheets that consolidated information from the original 37 worksheets. For ease of reference, the 28 optimized worksheets retained the numbering system from the original 37 worksheets on which they are based.

The optimized worksheets were developed based on user comments to help eliminate redundant information, and also to align project-planning activities more closely with EPA's 7-step DQO process. The IDQTF believes that users should find the optimized worksheets more user-friendly.

(7) If there are no sampling activities associated with my project and we are using only existing data, should we still develop a QAPP?

Use of a QAPP should be considered for projects using existing data, if the data are to be used for purposes other than those for which they were originally collected. EPA QA/G-5 defines existing data as data or information that you plan to use, but that have not been newly generated by your project. Examples include (but are not limited to) data from the following sources:

- Publicly available sources (e.g., U.S. Geological Survey)
- Scientific journals
- Previously prepared reports
- Model outputs

When planning to use existing data, project teams should evaluate the data relative to project-specific acceptance criteria, identify any limitations associated with the data, and determine how these limitations affect use of the data on the current project.

A QAPP presents the steps that will be taken to ensure that environmental data are the appropriate type, quality, and quantity for a specific decision or use, and this applies whether collecting new data or using existing data. Worksheet 13 specifically addresses the uses and limitations of secondary data. If a project is using only existing data, then use of all 28 (optimized) or 37 (original) UFP-QAPP worksheets will not be necessary. This should be explained in a crosswalk table (See question 8, below.)

(8) May worksheets be modified or deleted? May I complete only the required ones?

Yes. As described in the UFP-QAPP Manual, the worksheets are a tool, and they may be modified, deleted, or supplemented to suit project-specific requirements. The worksheets were designed to make it easier for project teams to develop QAPPs, regulators and other stakeholders to review them, field teams to implement procedures, and assessors to evaluate conformance to stated requirements, while ensuring that all requirements of ANSI/ASQ E4-2004 are addressed.

The content and level of detail of a UFP-QAPP will vary according to the work being performed (this is referred to as the "graded approach"); however, the reasons for omitting specific worksheets (whether using the original or optimized formats) must be documented in the UFP-QAPP crosswalk table (attached to Worksheet #2), and the location of the required information must be referenced. The crosswalk table is a tool that both documents the completeness of the UFP-QAPP relative to ANSI/ASQ E4-2004 and facilitates review of the UFP-QAPP by informing readers where to find specific requirements.

The key requirement of any UFP-QAPP is to ensure that all quality system elements prescribed in ANSI/ASQ E4-2004 are addressed. The worksheets specifically do this.

(9) Is training available on the use of the UFP-QAPP worksheets? May contractors and regulators attend?

Yes. Three training courses are available and participation is open to contractors and regulators.

The Navy Civil Engineer Corps Officers School (CECOS) is currently sponsoring three courses:

The first is a two-day course, titled "**Uniform Federal Policy for Quality Assurance Project Plans**" covering the development of QAPPs based on the UFP-QAPP format. For more information, contact the Course Director: CECOS_N74@NAVY.MIL

The second course titled "**How to Plan Projects Using the Uniform Federal Policy for Quality Assurance Project Plans"** is a self-directed, half-day, training workshop in which a facilitator guides a small group (ideally 6 – 12 participants) through a scoping meeting using a systematic planning process.

The third is a train-the-trainer course, which teaches participants how to facilitate the half-day course. Course materials related to these two courses, including facilitator's and participant's guides, slides, video files, and reference documents, may be downloaded free of charge from the FFRRO website http://www.epa.gov/fedfac/documents/ufp_qapp_workshop.htm).

(10) How often and under what circumstances must I update my UFP-QAPP? If a laboratory updates its standard operating procedures (SOPs) during a project, must I update my UFP-QAPP?

According to EPA QA/R-5, "for programs of long duration, such as multiyear monitoring programs or projects using a generic QA Project Plan, the QA Project Plans shall be reviewed at least annually by the EPA Project Manager (or authorized representative). When revisions are necessary, the QA Project Plan must be revised and resubmitted for review and approval.

According to the draft EPA Standard 2106-S-02.0, "U.S. EPA Quality Standard for Environmental Data Collection, Production and Use by Non-EPA (External Organizations)", "The organization shall ensure that QAPPs are kept current for the term of the agreement. When modifications are needed, the changes shall be made in a timely manner and communicated to all appropriate personnel. For multi-year projects, the organization's project office shall confirm at least annually the continued relevance and applicability of the QAPP(s). If a revision is needed, the review and approval shall be conducted in the same manner as the original documents, including review and approval by EPA."

A UFP-QAPP should be updated whenever there is a change in procedures or requirements that could have an impact on data quality, but a multi-year UFP-QAPP should be reviewed annually. If a project's DQOs remain the same, but a procedure changes that could have an impact on data quality, updating the relevant UFP-QAPP worksheets will usually be sufficient. On the other hand, if the DQOs themselves change (e.g., a project moves from the SI phase to the RI phase), then a new UFP-QAPP should be generated. Project teams should check with their regulators for specific requirements they may have.

In either case, a QAPP prepared in accordance with the UFP-QAPP must identify both the field and laboratory SOPs that will be in use <u>at the time</u> the project is implemented. If the SOPs are updated following UFP-QAPP approval, but before implementation, then the relevant UFP-QAPP worksheets must be updated as well. Updating an SOP can have a significant effect on overall data quality and use. The worksheet format makes the process of updating a QAPP very straightforward. For the

sake of data comparability, however, a change in procedures in the middle of a project should generally be avoided.

(11) At the time I prepare my UFP-QAPP, contractor selection usually has not been completed. May I still submit it for regulatory review?

Yes. It is not unusual to submit a draft UFP-QAPP for regulatory review before laboratories or other contractors are identified. This is a project-specific decision that needs to balance the timing of contract awards, review timeframes, and overall schedule requirements. Before the UFP-QAPP is implemented, however, all contractors must be identified, all relevant information must be included, and a complete QAPP must be submitted to and approved by regulators.

Planning

(12) Who should attend project-scoping meetings? Is more than one scoping meeting necessary?

All organizations that have a stake in the project, including facility owners and operators, the lead agency, regulators, and contractors, should participate in project scoping (planning activities). Project planning activities should also involve personnel with the appropriate technical qualifications, considering the nature of the work to be performed and the decisions to be made. This does not mean that every stakeholder needs to participate in every planning meeting.

Project scoping meetings are the venue for defining the problem, developing data quality objectives, and planning data collection activities. This rarely occurs in one setting. In a typical case, the lead agency and contractor will conduct one or more internal meetings to define the problems and develop recommendations for addressing them, before presenting them to a larger body of stakeholders. These internal meetings usually will be followed by one or more meetings in which stakeholders and decision-makers reach agreement on a path forward. The value of documenting scoping meetings in the QAPP is that it provides a trail of both the decision-makers and the decision-making process.

Scoping sessions and decision-making can occur through teleconferences, web-based conferences, face-to-face meetings, and e-mails. Regardless of the format, it is especially important to document consensus agreements, decisions and action items on Worksheet #9, as these are inputs to development of DQOs, sampling designs, and data collection procedures.

Implementation

(13) Which worksheets are most useful to the field team?

The field team should have access to a complete UFP-QAPP, including field SOPs, at all times during project implementation. That said, the following worksheets contain key information that is either necessary or helpful for carrying out field activities, including the collection of samples, the

performance of field testing/analysis, the completion of field records, and the performance of field audits:

WS 10: Conceptual Site Model
WS 11: Project/Data Quality Objectives
WS 12 Measurement Performance Criteria
WS 14, 16: Project Tasks & Schedule
WS 17: Sampling Design and Rationale
WS 18: Sampling Locations and Methods
WS 19&30: Sample Containers, Preservation, and Holding Times
WS 20: Field QC Summary
WS 21: Field SOPs
WS 22: Field Equipment Calibration, Maintenance, Testing, and Inspection
WS 23: Analytical SOPs
WS 26, 27: Sample Handling, Custody, and Disposal
WS 29: Project Documents and Records

(14) On behalf of our regulators, we requested copies of analytical SOPs from our contract laboratory to be included as an appendix to the copy of the UFP-QAPP that we send for regulatory review; however, the laboratory claims that its SOPs are proprietary and is reluctant to provided copies of them. What are options for addressing this?

It is not uncommon for a regulator to request copies of analytical SOPs, especially in cases of high visibility projects, for which planning documents will become part of an administrative record. Also, a review of laboratory SOPs by the project chemist or quality assurance officer is particularly important in investigations involving modified EPA methods, new methods, or the application of methods to special (atypical) analytes.

Even where this is not the case, a record of the specific analytical SOPs in use at the time samples are analyzed is an important link in data traceability as well as data quality and usability assessments, and including copies of the SOPs as an appendix to the QAPP is a convenient way to help document traceability.

A laboratory has a right to protect its confidential business information; however, there are options for addressing this situation:

Option 1: Request that the laboratory provide controlled copies of its SOPs, which can be provided to the respective reviewer only for review and then maintained in the project file as Confidential Business Information (CBI). The controlled copies of the SOPs can be labeled to make it clear they contain CBI and may not be reproduced. If a laboratory is not amenable to this option, then other laboratories should be consulted. In any case, where laboratories are concerned about protection

of their confidential business information, project teams should seek further guidance from their regulators, contracting officers, and legal counsel.

Option 2: Request that the laboratory populate a supplemental worksheet that includes the vital information from the SOP. Alternatively, send the Project Chemist to the laboratory to review the SOPs on site and complete the supplemental worksheet. To address this issue, the EDQW developed the supplemental UFP-QAPP worksheet included on the following page.

Supplemental Analytical SOP Information Worksheet

Use this worksheet to identify critical components of the analytical standard operating procedures (SOPs). This worksheet must be fully populated if the analytical SOPs are not attached to the SAP or available for project-specific review.

Specify and describe the sample preparation and clean-up methods and associated SOP numbers:

List all associated equipment and supplies used:

Describe the sample homogenization process, if applicable:

Approximate initial target wet weight or volume of sample used:

Provide a summary of the method blank requirements including the decision criteria and corrective action requirements:

Specify the final target extract sample volume:

List all associated chemicals and solvents used:

List internal standards and surrogates used, their final concentrations, performance criteria for each, and the corrective action protocols:

List LCS, MS, and MSD spiking standards used, the analytes included in these QC spikes, their final concentrations, performance criteria for each, and the corrective action protocols:

For mass spectral methods, identify the tuning compounds, their respective concentrations, and provide a list of the tune parameters to be used.

List the concentrations of calibration standards, the calibration method (i.e. linear, quadratic, RRF's etc.), and the calibration requirements (including the initial calibration verification of response, linearity, relative response times, continuing calibration requirements, and frequency):

Specify the operating parameters for the analytical equipment (e.g. flow rates, zone temperatures, integration times, injection type and volumes, scan times, etc.):

Specify reporting requirements:

For MS methods, describe the criteria used for performing library searches:

For methods requiring confirmation analysis (additional detector or column analysis), provide same information as provided for the primary analysis (calibration method, requirements, and verification):

For methods requiring confirmation analysis, provide criteria and reporting requirements for confirmation: