Minnesota Pollution Control Agency Quality Assurance Project plan guidance

Overview

Quality Assurance Project plans (QAPP) are defined by the Minnesota Pollution Control Agency (MPCA) as an agreement between the regulator, the responsible party, the consultant, the laboratory, and other interested parties concerning what work will be performed, how it will be performed, why the work is being performed, the analytical methods used, and the quality assurance/quality control that must be met for the project. They are an important part of the work done by the agency because they set forth the project goals and requirements needed to meet said goals. It is important that the QAPPs that are being prepared for and by the MPCA are prepared properly.

The purpose of this guidance document is to create a blueprint for the general QAPPs submitted for work done for or by the MPCA. However, this guidance is not intended for QAPP submittals under Final Department of Defense - State Memorandum of Agreement contracts. The guidance found within this document is meant to help individuals preparing and reviewing the QAPPs to save time and prevent typical errors found during preparation and review. The guidelines found within this document are used as the minimum requirements for QAPP submittals to the MPCA. Submit questions about the guidance document or QAPP requirements to qa.questions.mpca@state.mn.us.

Prior to starting

Before writing the QAPP, the author must identify if a QAPP is required for the work being done.

All work performed by or on behalf of Environmental Protection Agency (EPA) involving the collection, production, evaluation, or use of environmental information including the design, construction, operation, or application of environmental technology must be documented in a QAPP. This usually requires a QAPP for all projects, but the MPCA does use Sampling and Analysis Plans in certain circumstances (e.g., Voluntary Investigation and Cleanup projects, small Resource Conservation Recovery Act sites, Leaking Underground Storage Tanks (LUST) site reports, etc.). Some programs use a program wide Quality Assurance Program Plan (QAPrP) and do not need project specific QAPPs if the work to be done falls within the parameters set within the QAPrP.

The next consideration that is needed for writing the QAPP is whether the QAPP requires EPA region 5 approval. All QAPPs that include sites that are EPA funded and/or are listed on the National Priorities List (NPL) require EPA-approval. If you are unsure of what type of plan is required or whether EPA approval is required, contact the project manager at the MPCA or reference the MPCA's Quality Management Plan which can be found on the MPCA's Science and Data Page. (Science and data | Minnesota Pollution Control Agency (state.mn.us).

Next, the QAPP author must determine whether the project is going to require laboratory analysis. When laboratory analysis is required a laboratory or contractor (this can include multiple laboratories) is identified and laboratory quality assurance (QA) manual and appropriate standard operation procedures (SOPs) are included with the QAPP. The consultant firm/author must identify the timeline for the work to be performed. If one of the major parties is changed (e.g., a new laboratory or consultant is hired) then an amendment to the QAPP must be written. The EPA and MPCA consider a QAPP to be the final word when a disagreement arises on the site dealing with anything covered by the document. Therefore, it is critical that the document be complete and agreed to by all parties. It is MPCA policy that if a QAPP is required for the project, the project cannot commence until the QAPP is finalized by signature by all included parties. Additionally, all parties involved in the project must have a copy of the signed QAPP available for reference before the project begins.

Amendments

Over the course of a project, it may be necessary to update information found within the QAPP. This can include changes to project staff members, the laboratory, QC acceptance criteria, methods, and/or reporting limits for the analytes of interest. There are considerations that need to be addressed in each of these cases. If the laboratory is switched, the new laboratory must still be accredited Minnesota Department of Health MNELAP. Any changes made to the analytical methods used and/or to the laboratory requirements must meet or exceed the quality goals specified in the original QAPP. Document the changes made to the QAPP in a revision history and attach to the QAPP.

The QAPP must be re-routed for signature after amending unless the only change is updating personal. All data previously collected will be assessed to the previous version of the QAPP, but all data from the date of the final signatory will be assessed against the updated version of the QAPP.

Document preparation consideration

The MPCA has included a QAPP template that includes necessary additions to sections based on the 2023 EPA QAPP standard as an appendix to this document. It is not required to use the template, but it is required to follow the EPA standard on the preparation of all QAPPs for any MPCA work.

a. The QAPP must be paginated with sections clearly marked on every page.
b. For EPA approved QAPPs it is allowable to have a unit designated Quality Assurance Coordinator as a signatory and reviewer. However, their independence from the other project staff must be documented within the QAPP as per element A9 of the 2023 EPA QAPP standard.
c. For self-approved QAPPs, the Quality Assurance Coordinator must be a member of the MPCA Data Environmental Data Quality Unit.
d. If a paper copy of the QAPP is maintained, items to be removed from the document must have a single line drawn through them with the date and initials of the individual making the change clearly visible.
e. Prior to QAPP finalization, a version labeled as a draft must be saved with all the changes tracked to determine what has changed throughout preparation and whenever the QAPP is revised.
f. Once the QAPP has been circulated for signature, any additional changes to the QAPP will be addressed in a new revision so the work for the project can begin. Any suggestions will be rejected for the current QAPP version.
g. Referencing other documents (or providing links to those documents) is allowed provided that the referenced documents are available to be reviewed with the QAPP. The references must be very specific as to the section, subsection, and page the information is found. References to a general policy, a SOP, or another manual without specific reference information included are not acceptable.
h. QAPPs that reference material that is not included in the submission will not be approved.
i. References to National Standards (such as EPA SW-846, EPA QA/G-4, ISO 17025, etc.) as SOP for a firm or laboratory are not acceptable. SOPs must be developed by the parties included in the QAPP that reference the National Standards. Specific information is required.

j. A laboratory or firm must submit specific information for each of the laboratory locations included on the QAPP. If laboratory SOPs reference multiple facilities, that must be clearly stated within the SOP. Generic or corporate information that is not specific to actual site work or practice will be rejected.
k. The QAPP must be written so individuals doing work covered by the QAPP can clearly understand what is being done, why, by whom, and what the anticipated outcome of the work will be.
l. If a section does not apply, do not skip it. List the heading and note "Not applicable to the scope of the project".

References:

"Instructions on the Preparation of a Superfund Division Quality Assurance Project Plan", Region V USEPA, Revision 0, June 2000.

"Guidance on Systematic Planning Using the Data Quality Objectives Process", EPA QA/G-4, EPA/240/B-06/001, USEPA, February 2006.

"EPA Quality Assurance Project Plan Standard", EPA, 03/07/2023

"Data Quality Objectives Memo", MPCA, July 1998.

"Laboratory Quality Control and Data Policy", Guidance Document p-eao2-09a, MPCA, August 2022.