**USEPA REGION 10 QUALITY ASSURANCE PROJECT PLAN REVIEW CHECKLIST
*(See page 9 for a List of Acronyms)***

|  |  |
| --- | --- |
| **PROJECT TITLE:**  |  |
| **EPA RPM/PO:** |  |  **Program:** |  |
| **QAPP Prepared by:** |  | **Date Submitted:** |  |
| **QA Reviewer:** |  |  **Date Reviewed:** |  |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EPA Lead?**  | **Y** |  |  **N** |  |  | **RSCC Support?** | **Y** |  | **N** |  | *(if Yes, provide QAPP to RSCC)* |
|  |
| **For EPA Contractor, was QARF signed by RQAM?** | **Y** |  | **N** |  |  |

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| **Evaluate “general planning considerations” to help identify major deficiencies and determine the *Level of Effort* for QAPP review keeping in mind the graded approach to planning and significance of the data use.** |

 *(Y – Yes, N - No, NA – Not Applicable)*

| **General Planning Considerations** | **Y/N/NA** | **Comment** |
| --- | --- | --- |
| Is the purpose of the project clearly stated where environmental data needs are identified? |  |  |
| Is the intended use of the data identified? |  |  |
| Are there any evaluation criteria or action limits provided which are derived from the intended data use? |  |  |
| Is the collection of secondary (existing) data identified? |  |  |
| Is the sampling information complete (number of samples, matrices, sampling methods, locations, schedule, etc.)? |  |  |
| Are sample container/preservation/holding time requirements tabulated, appropriate and complete? |  |  |
| Is the analyte list complete? |  |  |
| Have reporting limits been identified which are needed to achieve the intended data use? |  |  |
| Are the test methods appropriate for this work? |  |  |
| Is lab accreditation or a lab Quality Assurance (QA) Manual necessary? |  |  |
| Are Standard Operating Procedures (SOPs) required (Field, Lab)? |  |  |
| Are corrective actions identified (sample alteration forms, corrective action forms, etc.)? |  |  |
| Is the data validation Level of Effort (LOE) appropriate for this work?  |  |  |
| Are data qualifiers necessary, and if so, provided? |  |  |
| Can data use goals be achieved if the QA Plan is followed? |  |  |
| Does the QAPP follow specific format (e.g., R-5, G-5, UFP)?  |  |  |
| **General Planning Consideration Notes:**  |

**EPA QAPP REVIEW CHECKLIST**

| **QAPP Element** | **Y/N/NA** | **Comment** |
| --- | --- | --- |
| **PROJECT MANAGEMENT** |
| **A1. Title and Approval Sheet** |
| Contains project title, effective date & revision number |  |  |
| Indicates organization’s name |  |  |
| Provides signature blocks for organization and/or EPA project manager, QA Manager, etc. (as required)  |  |  |
| **A2. Table of Contents** |
| Lists all major Sections, Tables, Figures, Page numbers and any associated Appendices |  |  |
| **A3. Distribution List** |
| Lists the recipients for the QA Plan and/or data (including their organization and contact information)  |  |  |
| **A4. Project/Task Organization** |
| Identifies key individuals involved in all major aspects of the project, including contractors |  |  |
| Discusses their responsibilities with regard to project management, sample collection, data generation, data review & assessment, data & records management |  |  |
| Project QA Manager position indicates independence from unit generating data |  |  |
| Organizational chart shows lines of authority and reporting responsibilities (as appropriate) |  |  |
| **A5. Problem Definition/Background** |
| Identifies data need & provides rationale (site background or historical context) for project initiation |  |  |
| States decision(s) to be made, actions to be taken, or outcomes expected from the information to be obtained |  |  |
| Identifies regulatory information, applicable criteria, action limits, etc. for final data comparison (as needed) |  |  |
| **A6. Project/Task Description** |
| Summarizes work performed, (e.g., measurements taken, data files obtained, etc.) that support the project’s goals |  |  |
| Provides schedule indicating project tasks, (e.g., start and completion dates for sampling, analysis, data review, assessment, actions taken & reporting) |  |  |
| Describes geographical area/site studied & sample locations including maps where possible  |  |  |
| **A7. Quality Objectives and Criteria** |
| Identifies performance/measurement criteria for all information to be collected and acceptance criteria for information obtained from previous studies, including project action limits and laboratory detection limits and range of anticipated concentrations of each parameter of interest |  |  |
| Precision of measurements described? |  |  |
| Bias/Accuracy of measurements described? |  |  |
| Representativeness of sample media addressed? |  |  |
| Completeness objective for sample collection & analysis provided? |  |  |
| Comparability of sample collection & laboratory methods addressed? |  |  |
| Sensitivity goals for measurements (e.g., MDLs, RLs) provided as they relate to project action limits (e.g., MCLs, WQ Std., etc.)? |  |  |
| **A8. Special Training/Certifications** |
| Identifies training or certification requirements for project personnel |  |  |
| Discusses how this training is provided |  |  |
| Indicates personnel responsible for assuring training requirements are met and where training records are stored |  |  |
| **A.9 Documentation and Records** |
| Identifies report format and summarizes all data report package information |  |  |
| Lists all other project documents, records, and electronic files that will be produced  |  |  |
| Identifies where project information should be kept and for how long |  |  |
| Discusses back up plans for records stored electronically |  |  |
| Identifies the person responsible for distribution of the final approved QAPP |  |  |
| **DATA GENERATION and ACQUISITION** |
| **B1. Sampling Process Design (Experimental Design)** |
| Describes the sample design strategy needed to achieve project goals (e.g., probability, judgmental). Summarize the sample areas, matrices, timeframes, & sample types. Relate the sample design against the statistical treatment of the resultant data (as applicable).  |  |  |
| Details the type and total number of sample types/matrix or sample collection event timeframes |  |  |
| Indicates how sample points will be identified & located |  |  |
| Discusses what to do if sample locations are inaccessible |  |  |
| Identifies task schedules (e.g., sampling events, sample shipments to labs, etc.) |  |  |
| Distinguishes between samples and analytes which are critical vs those that are secondary to the project?  |  |  |
| Identifies sources of variability and how this variability should be reconciled with project information |  |  |
| **B2. Sampling Methods** |
| Identifies all sampling SOPs by number, date, and regulatory citation, indicating sampling options or modifications to be taken |  |  |
| Indicates sample collection procedures by sample type (e.g., grab, composite, in situ, continuous, etc.) and matrix. Include special processing steps (e.g., filtering, MIS, etc.) |  |  |
| Identifies sample equipment needed |  |  |
| Indicates type of sample containers and required volumes |  |  |
| Identifies sample preservation requirements and methods |  |  |
| Indicates equipment decontamination procedure |  |  |
| Addresses actions to be taken when problems occur, identifying individual(s) responsible for corrective action and documentation requirements |  |  |
| Identifies if investigation-derived waste will be generated and any required parameters for disposal |  |  |
| **B3. Sample Handling and Custody** |
| States maximum holding times allowed from sample collection to extraction and/or analysis and, for in-situ monitoring, the time before retrieval of information |  |  |
| Identifies how samples or information are physically handled, transported, received and held in the laboratory or office (including temperature checks upon receipt) |  |  |
| Indicates how sample or information handling and custody information are documented (e.g., field logbooks, forms) and identifies person responsible for implementation |  |  |
| Discusses sample identification and documentation process, (e.g., ID #s, labels) and includes example labels  |  |  |
| Identifies COC procedures and includes form to track sample custody |  |  |
| **B4. Analytical Methods** |
| Identifies all analytical SOPs (e.g., field, lab) that should be followed by number, date, and regulatory citation, indicating options or modifications to be taken, such as sub-sampling and extraction procedures |  |  |
| Identifies measurement equipment needed |  |  |
| Specifies relevant method performance criteria |  |  |
| Identifies corrective actions to follow when failures occur, identifying person responsible for implementation |  |  |
| Identifies sample disposal procedures |  |  |
| Specifies laboratory turnaround times needed |  |  |
| Provides method validation information and procedures for use of nonstandard methods |  |  |
| **B5. Quality Control** |
| For each type of sampling, analysis, or measurement technique, identifies Quality Control (QC) activities which should be used, for example, blanks, spikes, duplicates, etc., and at what frequency |  |  |
| Details what should be done when control limits are exceeded, and how effectiveness of control actions will be determined and documented |  |  |
| Identifies procedures and formulas for calculating applicable QC statistics, for example, for precision, bias, outliers and missing data |  |  |
| **B6. Instrument/Equipment Testing, Inspection, and Maintenance** |
| Identifies field and lab equipment that require routine maintenance along with the schedule  |  |  |
| Identifies equipment testing & inspection criteria |  |  |
| Notes availability and location of spare parts |  |  |
| Indicates procedure for inspecting equipment before use |  |  |
| Identifies person responsible for equipment testing, inspection and maintenance |  |  |
| Indicates how deficiencies are resolved and documented |  |  |
| **B7. Instrument/Equipment Calibration and Frequency** |
| Identifies equipment that require calibration |  |  |
| Describes calibration process, acceptance criteria and standards or equipment certification (SOPs may be attached as appropriate) |  |  |
| **B8. Inspection/Acceptance for Supplies and Consumables** |
| Identifies critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials and the person responsible for implementation |  |  |
| **B9. Non-direct Measurements (secondary data)** |
| Identifies existing data sources (e.g., databases, models, literature, etc.) |  |  |
| Describes the rationale for their selection |  |  |
| Indicates the acceptance criteria for these data sources commensurate with the intended data use |  |  |
| **B10. Data Management** |
| Describes data management scheme from field to final use and storage |  |  |
| Discusses record-keeping and tracking practices, and the document control system (may cite SOPs) |  |  |
| Identifies data systems and data handling procedures used to process, compile, analyze, and transmit data reliably and accurately |  |  |
| Identifies person responsible for data management |  |  |
| Describes the process for data archival and retrieval |  |  |
| **ASSESSMENT and OVERSIGHT** |
| **C1. Assessments and Response Actions** |
| Lists the number, frequency, and type of assessment activities conducted, with the approximate dates |  |  |
| Identifies individual(s) responsible for conducting assessments and who is receiving assessment reports |  |  |
| Identifies how corrective actions are addressed, verified and documented and the person responsible for implementation |  |  |
| **C2. Reports to Management** |
| Identifies what project QA status reports are needed and their frequency  |  |  |
| Identifies who produces and receives status reports |  |  |
| If laboratory services to be used, identifies reports that will be generated and any specific elements (e.g., QA/QC forms, raw data, etc.) |  |  |
| **DATA VALIDATION and USABILITY** |
| **D1. Data Review, Verification, and Validation** |
| Describes criteria used for accepting, rejecting, or qualifying project data |  |  |
| **D2. Verification and Validation Methods** |
| Describes process for data verification and validation (including data validation turnaround times). Includes list of data qualifiers and their meanings |  |  |
| Identifies who is responsible data validation and how data issues will be resolved (e.g., reanalysis, etc.) |  |  |
| **D3. Reconciliation with User Requirements** |
| Describes procedures to evaluate if validated data achieved the quality objectives identified in section A7. |  |  |
| Describes how limitations on data use should be reported to the data users |  |  |

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| **LIST OF ACRONYMS** |
| **EPA** | Environmental Protection Agency |
| **G-5** | [Guidance for Quality Assurance Project Plans (**QA/G-5**)](https://www.epa.gov/quality/guidance-quality-assurance-project-plans-epa-qag-5) |
| **ID** | Identification |
| **LOE** | Level of Effort |
| **MCL**  | Maximum Contaminant Level |
| **MDL** | Method Detection Level |
| **NA** | Not Applicable |
| **PO**  | Project Officer |
| **QA** | Quality Assurance |
| **QAPP** | Quality Assurance Project Plan |
| **QARF** | Quality Assurance Reporting Form |
| **QC** | Quality Control |
| **R-5** | [EPA Requirements for QA Project Plans (QA/R-5)](https://www.epa.gov/quality/epa-qar-5-epa-requirements-quality-assurance-project-plans) |
| **RL** | Reporting Limit |
| **RPM**  | Regional Program Manager |
| **RQAM** | Regional Quality Assurance Manager |
| **RSCC** | Regional Sample Control Coordinator |
| **SOPs** | Standard Operating Procedures |
| **UFP** | Uniform Federal Policy |
| **WQ Std.** | Water Quality Standard |