## USEPA REGION 4 BROWNFIELDS QAPP REVIEW CHECKLIST

| QAPP Title:                      |
|----------------------------------|
| Cooperative Agreement Recipient: |
| Grant Number:                    |
|                                  |
| QAPP Preparer:                   |
| QAPP Date:                       |
| Transmittal Date:                |
| DAO Reviewer                     |

\*\*For DAOs, mark each element in the right-hand column with one of the following abbreviations:

 $\mathbf{P}$  = Present & Acceptable;  $\mathbf{NP}$  = Not Present;  $\mathbf{I}$  = Incomplete;  $\mathbf{NA}$  = Not Applicable

| ELEMENT   | Page Number &<br>Paragraph | EPA<br>Use |
|---|----------------------------|------------|
| A1. Title and Approval Sheet  |                            |            |
| Title (Including CAR's name and revision #)   |                            |            |
| Grant Number  |                            |            |
| Name of organization that prepared the QAPP   |                            |            |
| Dated signature of approving officials: printed names, titles, organizations, date, and signatures        |                            |            |
| Other signatures, as needed   |                            |            |
| A2. Table of Contents   |                            |            |
| A3. Distribution List   |                            |            |
| A4. Project/Task Organization   |                            |            |
| Key individuals, technical disciplines, and responsibilities  |                            |            |
| Organizational chart/table depicting lines of authority and reporting responsibilities                    |                            |            |
| A5. Problem Definition/Background   |                            |            |
| Clearly state the problem or decision to be resolved  |                            |            |
| Provide historical and background information   |                            |            |
| A6. Project/Task Description  |                            |            |
| List measurements to be made  |                            |            |
| Cite applicable technical, regulatory, or program-specific quality standards, criteria, and/or objectives |                            |            |
| Note special personnel or equipment requirements  |                            |            |
| Provide work schedule   |                            |            |
| Note required project and QA records/reports  |                            |            |
| A7. Quality Objectives and Criteria for Measurement Data  |                            |            |
| State project objectives and limits, both qualitatively and quantitatively                                |                            |            |
| State and characterize measurement quality objectives to applicable action levels or criteria             |                            |            |

<sup>\*</sup>This is **not** an exhaustive list of requirements and is not intended as guidance for developing a QAPP. Refer to the Preparation of Quality Assurance Project Plans for EPA Brownfields Projects in the Southeast for comprehensive requirements.

| ELEMENT   | Page Number &<br>Paragraph | EPA<br>Use |
|---|----------------------------|------------|
| A8. Special Training /Certification   |                            |            |
| State trainings, date of trainings, expirations, and where applicable records are maintained  |                            |            |
| A9. Documentation and Records   |                            |            |
| List information and records to be included for this project  |                            |            |
| State requested lab turnaround time   |                            |            |
| Give retention time and location for records and reports  |                            |            |
| B1. Sampling Process Design and Site Figures  |                            |            |
| Type and number of samples required   |                            |            |
| Sampling design and rationale   |                            |            |
| Sampling locations and frequency  |                            |            |
| Sample matrices   |                            |            |
| Classification of each measurement parameter as either critical or needed for information only  |                            |            |
| Describe/list SOPs used to characterize and dispose of IDW  |                            |            |
| B2. Sampling and Analytical Procedures  |                            |            |
| Describe the sampling methods and procedures or cite the specific SOPs to be used to guide the sample collection  |                            |            |
| Describe how problems (lost samples, broken equipment, etc.) will be resolved and documented  |                            |            |
| If SOPs are referenced, include a table listing all field sampling SOPs that will be used. Include the title of SOP, date, revision number and organization that wrote the SOP. Describe any modifications to the SOPs that are necessary for your project. |                            |            |
| B3. Sample Handling and Custody   |                            |            |
| Sample handling requirements  |                            |            |
| Chain-of-custody procedures   |                            |            |
| B4. Analytical Methods and Requirements   |                            |            |
| Identify the extraction, digestion, analytical methodologies to be followed   |                            |            |
| Specify the turnaround time for hardcopy/electronic laboratory data deliverables  |                            |            |
| Provide the laboratory SOPs as appropriate  |                            |            |
| Identify the individual(s) responsible for overseeing the analysis and implementing corrective actions  |                            |            |
| B5. Field Quality Control Requirements  |                            |            |
| Design the field QC program that will be routinely performed, and provide a corresponding field sampling QC table in the QAPP   |                            |            |
| Include field duplicate samples for each matrix and parameter, trip blanks for VOC samples, temperature blanks, and QA/QC samples as necessary  |                            |            |

| ELEMENT  | Page Number &<br>Paragraph | EPA<br>Use |
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| B6. Laboratory Quality Control Requirements  |                            |            |
| Determine the laboratory QC data to be routinely included with the laboratory's data package, and provide a corresponding laboratory analytical QC table.  |                            |            |
| B7. Field Equipment Calibration and Corrective Action  |                            |            |
| If contained in SOPs, reference that appendix in this section of the QAPP. Otherwise, provide a field equipment calibration table for the types of field equipment routinely used                            |                            |            |
| Discuss the corrective actions taken in the field when the control limits are not met  |                            |            |
| B8. Laboratory Equipment Calibration and Corrective Action   |                            |            |
| If contained in laboratory SOPs, reference that appendix in this section. Otherwise, provide a laboratory equipment calibration table for each analytical method   |                            |            |
| Note responsible individuals   |                            |            |
| B9. Analytical Sensitivity and Project Criteria  |                            |            |
| Provide an analytical method sensitivity and project criteria table for the analytical methods that will be routinely performed  |                            |            |
| If the laboratory provides only one analytical method limit, note in the table whether it is the MDL or the QL/RL that is being reported   |                            |            |
| B10. Data Management and Documentation   |                            |            |
| Describe standard record-keeping, data storage, and retrieval requirements for digital and hard copies of field data, laboratory data, and manipulated data; Include any checklists used for data management |                            |            |
| Describe the control mechanism for detecting and correcting errors, and ensuring accuracy  |                            |            |
| Include the name, title, and organization of the person(s) responsible for these activities  |                            |            |
| C1. Assessments and Corrective Actions   |                            |            |
| Assessments/oversight that will be performed and frequency   |                            |            |
| The person(s) responsible for performing the assessments/oversight, and where the results will be documented   |                            |            |
| Identify who will receive the assessment/oversight report;<br>who will be responsible for dealing with corrective actions;<br>and follow up on assessments/oversight   |                            |            |
| C2. Project Reports  |                            |            |
| Identify the types of reports that will be routinely generated   |                            |            |
| Provide a detailed description of the contents of project final reports to establish expectations between report preparer and client   |                            |            |
| D1. Field Data Evaluation  |                            |            |

| ELEMENT  | Page Number &<br>Paragraph | EPA<br>Use |
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| Describe the final data evaluation process that will be routinely performed on the field data  |                            |            |
| Indicate how the results of the evaluation will be documented, and what will be presented the final report(s). Indicate the position(s) of the person(s) who will be performing the field data evaluation  |                            |            |
| D2. Laboratory Data Evaluation   |                            |            |
| Describe the final data evaluation process that will be routinely performed on the laboratory data   |                            |            |
| Perform a completeness check of the laboratory data package to ensure it is compliant with the requirements in the QAPP  |                            |            |
| Document the presence or absence of any problems with the data, and note any relevant sample data that may be impacted.  |                            |            |
| Evaluate the field QC sample results including data qualifiers for sample results  |                            |            |
| D3. Evaluating Data in Terms of User Needs   |                            |            |
| Describe the overall project evaluation process that will be routinely performed to determine the usability of the data, update the conceptual site model, and determine if the objectives of the project have been met                                    |                            |            |
| Tabulate the field sample data together with the state/federal standards for presentation in the final report  |                            |            |
| Using the summary tables and graphical presentations, evaluate the usability of the individual field sample results at the parameter level. Document any limitations   |                            |            |
| Document observations, trends, anomalies, or data gaps that may exist. Evaluate how the results have impacted the conceptual site model, and if the objectives of the project have been met. Draw conclusions and recommendations from all the information |                            |            |

| Final | QAPP | disposition | : |
|-------|------|-------------|---|
| 4     |      | 7           |   |

| Approved, no comments |
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- \_\_\_\_Approved with comments, resubmittal **not** required
- Conditionally approved, comments must be addressed, resubmittal required
- \_\_\_\_Not approved, comments must be addressed, resubmittal required

## References

EPA Requirements for Quality Assurance Project Plans, EPA QA/R-5, March 2001, EPA/240/B-01/003, Guidance for Quality Assurance Project Plans, EPA QA/G-5, December 2002, EPA/240/R-02/009 (Available from EPA's Website: http://www.epa.gov/quality)