STN Network - Technical Systems Audit Form

Part 1 - Quality System Documentation and Facility Operations

Monitoring Site Location _____

Assessor Name and Affiliation _____

Observer(s) Name and Affiliation _____

Reporting Organization _____

Assessment Date _____

AUDIT QUESTIONS	RESPONSE			COMMENTS
	Y	N	NA	
1. Is there an approved quality assurance project plan (QAPP) for the overall program and has it been reviewed by all appropriate personnel?				
2. Is a copy of the approved QAPP available for review by field operators? If not, briefly describe how and where QA and QC requirements and procedures are documented.				
3. Is the EPA approved QAPP being used by this organization?				
4. If yes on #3, is it signed?				
5. Are corrective actions in place when MQOs (e.g., out-of-control calibration data) are not met? If yes, briefly describe them.				
6. Are written and approved standard operating procedures (SOPs) used in the program? If so, are these the SOPs that were written in the EPA Field QAPP or IMPROVE QAPP? Are they available for review by field operators?				
Additional Comments:				

AUDIT QUESTIONS	RESPONSE			COMMENTS
	Y	N	NA	
ORGANIZATION AND RESPONSIBILITIES				
1. Field Operations Manager: (Name) (Phone) (email) - Development of monitoring network, - Coordinates field operations, - Logistical support of field operations, - Training monitoring site operators, and - Review of routine sampler data and quality control data.				
2. Monitoring Site Operator(s): (Name) (Phone) (email) (Name) (Phone) (email) - Operation of samplers, - Calibration of samplers, - Maintenance of samplers, - Maintenance of monitoring site, and				
3. Who is authorized to halt the program in the event of a health or safety hazard or inadequate quality?				
4. Has the operator been trained in the particular hazards of the instrument/materials with which they are operating?				
Additional Questions or Comments:				

AUDIT QUESTIONS	RESPONSE			COMMENTS
	Y	N	NA	
TRAINING, SAFETY and MODULE HANDLING AT OFFICE				
1. Have the monitoring site operators attended the training that has taken place in Las Vegas or RTP? If so, what date?				
2. Has the operator been trained in the particular hazards of the instruments/materials with which they are operating?				
3. Are personnel outfitted with any required safety equipment?				
4. Are personnel adequately trained regarding appropriate safety procedures?				
5. Are the field and Chain of Custody forms being filled out properly?				
6. Are the coolers being packed according to the SOPs in Appendix A-5 (see EPA Field QAPP)?				
Additional Questions or Comments:				

Part 2- Systems Audit Checklist for Monitoring Site

Monitoring Site Location _____

Assessment Date _____

AUDIT QUESTIONS	RESPONSE			COMMENT
	Y	N	NA	
A. Sampler Siting				
1. Does the location for the samplers and collocated sampler(s) conform with the siting requirements of 40CFR58, Appendices A and E?				
2. Are there any visible hazards or noticeable problems at the site?				
3. Are there any changes at the site that might compromise original siting criteria (e.g., fast-growing trees or shrubs, new construction)?				
4. Are there any visible sources that might influence or impact the monitoring instrument?				

AUDIT QUESTIONS	RESPONSE			COMMENT
	Y	N	NA	
Briefly draw the monitoring location and illustrate all obstructions including distances to the nearest roadways and/or obstructions. If you need more paper, use the back side of this sheet. After your sketch, please photograph the shelter from 8 cardinal directions, and then take photographs looking from the shelter in the 8 directions.				

AUDIT QUESTIONS	RESPONSE			COMMENTS
	Y	N	NA	
B. Monitoring Site				
1. Are site logbooks and required data sheets filled in promptly, clearly, and completely?				
2. Does the operator keep the module handling area neat and clean? Is there adequate room to perform the needed operations?				
3. Do the sampler(s) appear to be well maintained and free of dirt and debris, bird/animal/insect nests, excessive rust and corrosion, etc.?				
4. Are the walkways to the station and equipment kept free of tall grass, weeds, and debris?				
5. Is the shelter (if any) clean and in good repair?				
6. What are the latitude and longitude readings at the site?				
Additional Comments:				

AUDIT QUESTIONS	RESPONSE			COMMENTS
	Y	N	NA	
C. Sample Handling				
1. Are all samples handled with the necessary care and finesse to avoid contamination and/or loss of material?				
2. Are blanks routinely used by the monitoring organization? Check log books at the site to verify field blanks are run periodically, as specified by the weighing laboratory. *Trip blanks one set every 30 days* *Field blanks one set every 10 days*				
3. Observe the following handling steps for routine samples, verifying that the operator follows the sample handling SOPs correctly: - receipt of samples at the sampling site and unpacking - completion of sample logbook entries and other required documentation - inspection of the sample prior to sampling - installation of sample in the sampler - retrieval from the sampler after sampling - packing and sending to the laboratory - completion of chain of custody and field data forms supplied by the reporting organization - samples shipped				
4. Request the operator to perform the field blank sample-handling procedures (if not possible, go through the SOP step-by-step and verify that the operator knows the correct procedures.): - receipt of samples at the sampling site and unpacking - completion of sample logbook entries and other required documentation - inspection of the sample prior to sampling - installation of sample in the sampler - retrieval from the sampler (without sampling) - packing and sending to the laboratory - completion of chain of custody and field data forms supplied by the reporting organization				
Comments:				

Part 3- MQOs for Monitoring Sampler, Calibration and Audit Devices

Monitoring Site Location _____

Assessment Date _____

Table 1. Sampler Calibration, Maintenance Requirements and Traceability

Checks/Maintenance	Frequency	Requirement	Performed?	Date
Clock check	Every Run	Current date, time ± 5 minute		
Flow Rate check	Monthly	± 10% working standard		
Flow Rate Audit	Quarterly	± 10% of audit standard		
Leak check	Every Run	< 80 ml/min		
Clean inside of housing	Semiannual inspection	Per Service Manual		
Clean air screens	Semiannual inspection	Clear of obstructions to flow		
External Temperature Check	Monthly	Current temp ± 2° C via NIST traceable thermometer		
External Temperature Audit	Quarterly	Current temp ± 2° C via NIST audit thermometer		
Filter Temperature Check	Monthly	Current temp ± 2°C via NIST traceable thermometer		
Filter Temperature Audit	Quarterly	Current temp ± 2°C via NIST audit thermometer		
Ambient Pressure Check	Monthly	Current pressure +/- 10 mm Hg NIST traceable barometer		
Ambient Pressure Audit	Quarterly	Current pressure +/- 10 mm Hg NIST traceable barometer		
Flow rate Audit Device	Annually	Verify against NIST standard or sent to factory		
Temperature Audit Device	Annually	Verify against NIST standard or sent to factory		
Pressure Audit Device	Annually	Verify against NIST standard or sent to factory		
Flow rateCalibration Device	Annually	Verify against NIST standard or sent to factory		
Temperature Calibration Device	Annually	Verify against NIST standard or sent to factory		
Pressure Calibration Device	Annually	Verify against NIST standard or sent to factory		