

ABCWUA Compliance Division Protocol Agreement

Date: Effective date dependent on final construction of UV treatment and associated buildings.

Program: TP **Protocol:** TP2.7 UV **Revision:** 4

Objective: NPDES / POTW Compliance Monitoring – Effluent and SWRP Process Monitoring.

Reference Document(s): NPDES Permit No. NM0022250; issued May 2005 as extended April 2010 per EPA notification of submittal of complete permit renewal packet October 2009. 40CFR136 Guidelines Establishing Test Procedures for the Analysis of Pollutants

Sample Purpose (monitoring, special, verification, process control, compliance, confirmation, etc.): Compliance and process control monitoring.

Sample Collection Type/Details (grab, composite, 24hr, 1 L/24hr, Flow Weighted, Time Weighted, Equipment-tubing, filters): 24 hour flow weighted composite sample.

Sample Collection Frequency (Daily, Weekly, Monthly, Quarterly, Biannually, Annually, Other): Daily at approximately 06:00 AM.

Sample Point Nomenclature Convention: TP2 = Treatment Plant 2. .7 = plant effluent channel at end UV treatment. See attached diagram.

Sampling Personnel (WQ Specialist, Monitoring Tech, Engineering Staff, Operators, etc.): Operator, Monitoring Technician, Shift Supervisor, Water Quality Specialist, or Pollution Prevention Specialist.

Field Instruction: See Standard Operating Procedure as approved by Program Manager/NPDES and Compliance Division Manager. Key notes: Composite sampler tubing will be changed every 2 weeks, with changes documented in field log. Compositing samples should be maintained at $4\pm 2^{\circ}\text{C}$. Composite sampler is kept locked; keys are maintained by Operator/Supervisor. WQL will provide a clean HDPE sample composite container in the sample kit for each day's sampling. A completed Sample Collection Checklist Form will be submitted with each sample. The sample kits will be picked up by Plant Operations staff each weekday by 10:00 AM. Multiple sample kits will be available for Friday pickup for weekend use. Immediately after collection, the HDPE composite sample container labeled "TP2.7" is delivered to the laboratory.

Laboratory Instruction: WQL will prepare and preserve aliquots from the composite sample immediately upon receipt. Sample kits will be prepared and available for sampling personnel by 10:00 hours weekdays. Multiple sample kits will be available for Friday pickup for weekend use.

External Laboratory Instructions: Applicable only if WQL services not available.

Special Handling Instructions: Samples should be maintained and stored at $4\pm 2^{\circ}\text{C}$. Aliquots for determination of ammonia and COD will be preserved with H^2SO^4 by laboratory staff if the samples will not be tested within 24 hours of receipt. Any method or protocol change must be preapproved by the Compliance Division Manager or the NPDES Program Manager and the WQL Program Manager.

Chain of Custody: Required ☐ Yes X No

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QA/QC Data Requirements: QA information and QC data should be available on client request.

Date: 12/6/2010

Program: TP

Protocol: TP2.7 UV

Revision: 4

Client Contact(s):

Priority	Contact	Title	Phone	Cell Phone	Email
1	Jeff Romanowski	Plant Manager	505-873-7035	505-506-6021	jromanowski@abcwua.org
2	Joey Nogales	Operations Supt	505-980-4343	505-980-4343	jnogales@abcwua.org
3	Patrick Akin	Program Mgr	505-873-6936	505-206-2676	pakin@abcwua.org

Reporting Criteria:

Reporting Format: Manual data entry daily to DayPro. Approved results entered to LIMS; client receives email notification.

Reporting Time Frame: Same day results, except for BOD and CBOD within six (6) days.

Billing Method: Activity #5914000

Protocol Agreement:

Protocol Agreement can only be approved or modified by 1) Compliance Division Manager, 2) Program Managers or 3) Designated External Client Representative and WQL Program Manager.

Prepared by Title Date

Program Manager Date

Designated External Client Representative Title Date

WQL Program Manager Date

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Compliance Division Manager

Date

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Protocol Analyses Definition

Program: TP		Protocol: TP2.7 UV			Revision: 1												
Primary Laboratory	External Laboratory	Sample Kit	Analyte	Method	Preservation	Units	EPA D/Q Limit	EPA D/Q Limit Type	Lab MDL	Lab PQL	Hold Time	Turn Around Time (how long it takes to process a sample and return the results)	Analyte Cost	Low	High (lowest regulatory limit)	Low	High
WQL		4 liter plastic or glass container	Ammonia	SM 4500 NH ₃ D	Lab to Acidify w/ HNO ₃ to pH < 2, 4°C	mg/L			0.1		28 days	48 hours	\$14.00		1.5		
			CBOD ₅	SM 5210 B		mg/L			1		48 hours	7 days	\$26.00		8		
			COD	SM 5220 D	Lab to Acidify w/H ₂ SO ₄ to pH<2	mg/L			20		28 days	48 hours	\$24. 00				
			TSS	SM 2540 D	4°C	mg/L			NA		7 days	48 hours	\$12.00		30		
			Fecal Coliform	SM 9222B	Lab to Acidify w/ 4°C, Na ₂ S ₂ O ₃	CFU per 100 ml			1		6 hours	24 hours	\$30.00		200		
					4°C										8		
			Nitrate	SM 4110 B		mg/L			0.2		48 hours	48 hours	\$16.00				
			Nitrate/nitrite	SM4500NO ₃ F	4°C	mg/L			0.2		28 days	48 hours	\$30.00				
Field Grab			Chlorine (residual)	SM 4500 CLD.B		mg/L			0.05		15 minutes	24 hours	\$15.00		0.05		
			pH	SM 4500H.B		Std Unit			NA		15 minutes	24 hours	\$6.00		6.6		
			DO	SM 4500O.C		mg/L					15 minutes	24 hours	\$25.00		4		
													\$174.00				

* Acidification is not required if analysis is completed within 24 hours of collection