A2LA Assessor Environmental Method Checklist

Turbidity

Item	Section 1 - Personnel	Reference	Yes-No or NA	
1.1	Does the analyst(s) interviewed meet the job description position requirements, training and qualifications for performing the test? Supervisor:_____ Technician:_____	(G25)6.1		

Item	Section 2 - Equipment & Facilities	Reference	Yes-No or NA	
2.1	Is a nephelometer with light source, photoelectric detectors and readout device available for use?	(SM18)2130B,2.a (1992)		
2.2	Is the light source a tungsten lamp operating at color temperature between 2200-3000°K?	(SM18)2130B,2.a (1992)		
2.3	Is the distance traversed by incident light and scattered light in the sample tube less than 10 cm?	(SM18)2130B,2.a (1992)		
2.4	Is the photoelectric detector located 90° ±30° to the incident light path?	(SM18)2130B,2.a (1992)		
2.5	Does the detector and filter (if any) have a spectral peak response between 400 and 600 nm?	(SM18)2130B,2.a (1992)		
2.6	Is the turbidimeter designed so that little stray light reaches the detector in the absence of turbidity and is the detector free of significant drift after warm-up?	(SM18)2130B,2.a (1992)		
2.7	Does the instrument sensitivity permit the detection of 0.02 NTU or less turbidity differences in waters of less than 1 NTU?	(SM18)2130B,2.a (1992)		
2.8	Are the sample tubes clear colorless glass, clean, and free of scratches?	(SM18)2130B,2.b (1992)		

Item	Section 3 - Method	Reference	Yes-No or NA	

3.1	Are stock turbidity suspension solutions prepared monthly?	(SM18)2130B,3.b. (1992)		
3.2	Are dilute turbidity standards prepared daily?	(SM18)2130B,3.e (1992)		
3.3	Are the manufacturer's operating instructions followed?	(SM18)2130B,4.a (1992)		
3.4	Are calibration scales on the instrument checked with turbidity standards in the range of interest and is it documented?	(SM18)2130B,4.a (1992)		
3.5	Is at least one standard run for each instrument range to be used?	(SM18)2130B,4.a (1992)		
3.6	Are calibration curves prepared for each range the instrument is used for measurement, when a precalibrated scale is not supplied?	(SM18)2130B,4.a (1992)		
3.7	Are solids dispersed before measurement by shaking the sample?	(SM18)2130B,4.b (1992)		
3.8	Are air bubbles absent at measurement by placing the tube in ultrasonic bath for 1 to 2 seconds?	(SM18)2130B,4.c (1992)		
3.9	Are samples over 40 units diluted to the 0 to 40 range?	(SM18)2130B,4.c (1992)		

Item	Section 4 - Sample Handling Practices	Reference	Yes-No or NA	
4.1	Are wastewater samples analyzed within 48 hours of collection?	(CFR136)TableII(1/94)		

Item	Section 5 - Quality Control Practices	Reference	Yes-No or NA	
5.1	Is the reagent water passed through a 0.2 µm membrane filter for measurements as low as 0.02 NTU?	(SM18)2130B,3.a (1992)		
5.2	Is the reagent water passed through a 0.45µm membrane filter?	(ORDI)180.1,7.1(8/93)		
5.3	Are commercially prepared sealed liquid standards checked with diluted formazin or styrene divinylbenzene polymer (AMco-AEPA-1 Polymer) at least every 4 months?	(570.1)5.2.1,17(9/92)		
5.4	Are the sealed standards replaced when agreement is not within 15%?	(570.1)5.2.1,17(9/92)		
5.5	Are the laboratory control standards traceable to NIST?	(SM18)1020B,3(1992)		
5.6	Is the laboratory control standard analyzed once each day of analysis or whenever matrix spikes are not acceptable?	(SM18)1020B,3(1992)		
5.7	Is the reagent blank analyzed for at least 5% of the sample load?	(SM18)1020B,4(1992)		

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5.8	Is the mid level check standard run every 10 samples & is it within 10% of the true value?	(ORDI)180.1,9.3.2 (8/93)		
5.9	Are duplicates analyzed for at least 5% of the sample load?	(SM18)1020B,6(1992)		