Regional Inspectors' Checklist for Field Parameters

[This checklist is to be completed during regional plant inspections for Field Laboratories, denoted by certification numbers in the 5000s.]

Facility Name:	Regional Plant Inspector:
Permit #:	Regional Inspector Contact #:
Field Lab Certification #:	Region:
Lab Contact:	Date:

I. Check the parameter(s) performed at this site for reporting purposes.

☐ Total Residual Chlorine (TRC) ☐ Temperature (TEMP) ☐ Specific Conductance (SC)
☐ pH ☐ Dissolved Oxygen (DO) ☐ Settleable Residue (SETT)

II. General Laboratory (note any exceptions in section XI)

Are instruments, meters, probes, photometric cells, etc. maintained in good condition?	☐ Yes ☐ No
Are standards, reagents and consumables used within manufacturer expiration dates? [TRC gel standard is exempt.]	☐ Yes ☐ No

Are the following items documented (√ where applicable):

Item	TRC	pH	TEMP	DO	SC	SETT
Date of sample collection*						
Time of sample collection*						
Sample collector's initials or signature						
Date of sample analysis*						
Time of sample analysis*					N/A	
Analyst initials or signature						
Sample site (i.e., facility name, location, ID, etc.)						
Instrument ID						N/A
Parameter						
Data qualifiers, when required						

*Date and time of sample collection and analysis may be the same for *in situ* or on-site measurements.

III. Total Residual Chlorine – reference method:	
Total Residual Chlorine meter make and model:	
Is a check standard analyzed each day of use? (Circle one: gel or liquid standard)	☐ Yes ☐ No
Does the check standard recover within ±10% of the known value?	☐ Yes ☐ No
What is the assigned/observed value of the daily check standard?	
Is a 5-standard calibration verification performed? Note date of last verification:	☐ Yes ☐ No
Alternatively, does the lab construct a linear regression, using 5 standards, to calculate results? Note date of last calibration curve constructed:	☐ Yes ☐ No
True values: ☐ µg/L ☐ mg/L _____ _____ _____ _____ _____	
Obtained values: ☐ µg/L ☐ mg/L _____ _____ _____ _____ _____	
What program are samples analyzed on?	
Are results reported in proper units? Check one: ☐ µg/L ☐ mg/L	☐ Yes ☐ No
Are results reported between the facility's permit limit and the compliance limit of 50 µg/L?	☐ Yes ☐ No
Are results less than the low standard reported as "<x", where x=low standard conc.?	☐ Yes ☐ No
Is DPD/buffer added within 15 minutes of collection?	☐ Yes ☐ No
Is a post-analysis check standard analyzed if samples are analyzed at multiple sites?	☐ Yes ☐ No
IV. pH – reference method:	
pH meter manufacturer and model:	
Is the pH meter calibrated with at least 2 buffers per mfg's instructions each day of use? Note buffers used:	☐ Yes ☐ No
Is the pH meter calibration checked with an additional buffer prior to sample analysis? Note check buffer used:	☐ Yes ☐ No
Does the check buffer read within ±0.1 S.U. of the known value?	☐ Yes ☐ No
Are the following items documented:	
Meter calibration?	☐ Yes ☐ No
Check buffer reading(s)?	☐ Yes ☐ No
Are samples analyzed within 15 minutes of collection?	☐ Yes ☐ No
Are sample results reported to 0.1 pH units on the eDMR?	☐ Yes ☐ No
Is a post-analysis check buffer analyzed if samples are analyzed at multiple sites?	☐ Yes ☐ No

V. Temperature – reference method:	
What instrument(s) is used to measure temperature? Check all that apply: ☐ pH meter ☐ DO meter ☐ Conductivity meter ☐ Digital thermometer ☐ Glass thermometer	
Is the instrument/thermometer calibration checked at least annually against a NIST traceable thermometer?	☐ Yes ☐ No
Is NIST traceability documentation maintained on site?	☐ Yes ☐ No
Are samples measured within 15 minutes?	☐ Yes ☐ No
Are sample results reported in degrees C?	☐ Yes ☐ No
VI. Dissolved Oxygen – reference method:	
DO meter make and model:	
Is the air calibration of the DO meter performed each day of use?	☐ Yes ☐ No
Is meter calibration documented?	☐ Yes ☐ No
Are samples analyzed within 15 minutes of collection?	☐ Yes ☐ No
Are results reported in mg/L?	☐ Yes ☐ No
If samples are analyzed at multiple sites, is the meter recalibrated at each site or a post-analysis calibration verification performed?	☐ Yes ☐ No
Does the post-analysis verification theoretical value agree within 0.5 mg/L of the meter calibration reading?	☐ Yes ☐ No
VII. Conductivity – reference method:	
Conductivity meter make and model:	
Is the meter calibrated daily according to the manufacturer's instructions? Note standard used (this is generally a one-point calibration):	☐ Yes ☐ No
Is a daily check standard analyzed? Note value:	☐ Yes ☐ No
Is meter calibration documented?	☐ Yes ☐ No
Are samples analyzed within 28 days of collection?	☐ Yes ☐ No
Is a post-analysis check standard analyzed if multiple samples are analyzed?	
Are results reported in µmhos/cm (some meters display equivalent µS/cm units)?	☐ Yes ☐ No
VIII. Settleable Residue – reference method:	
Does the laboratory have an Imhoff Cone in good condition?	☐ Yes ☐ No
Is the sample settled for 1 hour?	☐ Yes ☐ No
Is the sample agitated after 45 minutes?	☐ Yes ☐ No
Are the following items documented:	
Volume of sample analyzed? Note volume analyzed (must use 1L):	☐ Yes ☐ No
Date and time of sample analysis (settling start time)?	☐ Yes ☐ No
Time of agitation after 45 minutes of settling?	☐ Yes ☐ No
Sample analysis completion (settling end time)?	☐ Yes ☐ No
Are samples analyzed within 48 hours of collection?	☐ Yes ☐ No
Are results reported in ml/L?	☐ Yes ☐ No
IX. Was a paper trail (comparing contract lab and on-site data to DMRs) performed? If so, list months reviewed:	☐ Yes ☐ No
X. Is follow-up by the Laboratory Certification program recommended?	☐ Yes ☐ No

XI. Additional comments:

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Please submit a copy of this completed form to the Laboratory Certification program at:
DWR Lab Certification, Water Sciences Section, 1623 Mail Service Center, Raleigh NC, 27699-1623

Electronic copies may be emailed to Jennifer.seaver@ncdenr.gov.

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