

## Quality Control (QC) and Record Requirements Checklist \* for BOD, TSS, Ammonia and Phosphorus

Based on NR 149 (2008). Indicate yes (Y), no (N) or not applicable (NA) for each analyte. SC indicates that you should see checklist (SC) that is specific to that analyte.

\*This checklist is for the aid of the Department and the laboratory. It is only an audit guideline, it is not meant to establish regulatory standards or to dictate audit format. Laboratories must comply with all applicable rule and method requirements whether listed on this checklist or not. The general quality control and record requirements are covered on a separate QC and Records Checklist.

|    | Quality Control  | BOD | TSS | NH3 | P  | Notes | Citation           |
|----|--|-----|-----|-----|----|-------|--------------------|
| 1  | Method blank per analytical batch. Must meet MB criteria.  |     | NA  |     |    |       | NR149.48(3)(a)     |
| 2  | Is corrective action taken if the method blank is above the LOD, 5% of regulatory limit or 10% of the sample concentration (whichever is <u>highest</u> )? | SC  | NA  |     |    |       | NR149.48(3)(d)     |
| 3  | ICAL daily BOD, NH3, monthly TSS, annually TP (minimum). 1 std BOD, minimum 2 for NH3 and minimum 3 for TP.  |     |     |     |    |       | NR 149.44(6)(d)(2) |
| 4  | Second source initial calibration verification (ICV) immediately after ICAL (not required if run QCS)  | NA  | NA  | NA  |    |       | NR149.44(6)(i)     |
| 5  | If 2nd source ICV is not run, is a QCS run three times a year?   | NA  | NA  | NA  |    |       | NR149.48(5)(a)     |
| 6  | Continuing calibration verification (CCV) if ICAL then after every 20 samples. If no ICAL then run before analysis and after every 20 samples.             | SC  | NA  |     |    |       | NR 149.48(4)       |
| 7  | Lab control sample (LCS) 1 per prep batch unless ICAL, ICV and CCV are digested then CCV=LCS   | NA  | NA  |     |    |       | NR149.48(4)(a)     |
| 8  | LOD determined annually or with major change.  | NA  | NA  |     |    |       | NR 149.48(2)(d)    |
| 9  | Replicates for TSS 20th edition only. 1/10   | NA  |     | NA  | NA |       | 2540(3)c           |
| 10 | When QC Limits are exceeded is corrective action taken and followed up on?   |     |     |     |    |       | NR149.38           |

QC/Records Checklist

|    | Records   | BOD | TSS | NH3 | P | Notes | Citation           |
|----|---|-----|-----|-----|---|-------|--------------------|
| 11 | Are all records available for last 3 years of analysis?   |     |     |     |   |       | NR149.39(1)c       |
| 12 | Are records kept in secure manner, recorded in ink or stored electronically w/ safeguards?                    |     |     |     |   |       | NR149.39(1)(f)     |
| 13 | Are SOPs documenting all methods and lab procedures available, up to date and followed?                       |     |     |     |   |       | NR149.39(1)(f)     |
| 14 | Are clear sample handling and preservation records kept?  |     |     |     |   |       | NR149.39(c)(1-6)   |
| 15 | Are standards and reagents used in analysis fully traceable?  |     |     |     |   |       | NR149.39           |
| 16 | Is the raw data (i.e. absorbance, millivolts) recorded for all samples and standards?                         |     |     |     |   |       | NR149.39(c)(12)    |
| 17 | Are sample results clearly traceable to the calibration curve that was used to generate them?                 |     |     |     |   |       | NR149.39(c)(11)    |
| 18 | Are equipment maintenance records for all analytical equipment kept?  |     |     |     |   |       | NR149.39(c)(15)    |
| 19 | Records of Initial demonstration of capability (IDC) are kept for each analysts and each parameter.           |     |     |     |   |       | NR149.36(3)(b)     |
| 20 | Chain of custody documents available unless the lab only collects, transports and analyzes their own samples. |     |     |     |   |       |                    |
| 21 | Are records associated with QCS (if chosen to run) and PT/reference samples available?                        |     |     |     |   |       | NR149.39(2)(d)     |
| 22 | Are records of corrective actions taken in response to QC failures available?                                 |     |     |     |   |       | NR149.39(c)(14)    |
| 23 | Does corrective action include qualification of data on data report or DMR?                                   |     |     |     |   |       | NR149.47(1)(e)(13) |

| Other Observations |  |
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