



Sample Reporting Guidance Manual for Public Water Systems

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Center for Drinking Water Quality
Environmental Health Division
Rhode Island Department of Health

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Basic Sample Results Reporting Requirements

Section 1.11.2(A)(5) of the Public Drinking Water Regulations (216-RICR-50-05-1) require drinking water sample results to be submitted electronically via the Compliance Monitoring Data Portal (CMDP). This guide contains some reminders and information to help you submit your results. Monitoring and/or reporting violations can be issued if results are not reported correctly or on time.

Per Section 1.11.2(A)(3) of the Public Drinking Water Regulations, **you must report priority results no later than 24 hours after the results are known** or on the next business day if State offices are closed. You must either electronically upload these results using the CMDP or submit a certificate of analysis to DOH.RIDWQ@health.ri.gov. For a list of priority results, please see the Public Drinking Water Regulations: <https://rules.sos.ri.gov/regulations/part/216-50-05-1>.

Failure to comply with any national primary drinking water regulations and maximum contaminant level violations are required to be reported within 48 hours, unless otherwise specified in the Public Drinking Water Regulations. All **other sample results are due by the 10th of the month following** the monitoring period. These results must be uploaded via CMDP by a certified laboratory.

Although you contract with a laboratory to report results to RIDOH on your public water system's (PWS's) behalf, it is the PWS's responsibility to ensure the data is reported correctly. You can ensure accurate reporting by providing the correct codes on a chain of custody form to the laboratory. Please be sure to use the appropriate coding for the State Assigned Facility IDs, Type Codes, and Sampling Points for each sample that is collected from or for your PWS. The lab will then enter the codes exactly as they appear on the chain of custody form into CMDP. To further ensure the accuracy of the reporting, you can always request to review your data before the lab uploads it.

The Rhode Island Department of Health Center for Drinking Water Quality (RIDOH CDWQ) wants you to be aware of the required reporting codes, if you are not familiar already. PWSs should also make sure that the laboratory is aware of these codes to avoid reporting violations.

Many of the reporting codes can be found on your monitoring schedules on Rhode Island Drinking Water Viewer: www.health.ri.gov/waterinfo. These codes are also in the table on page 3. We recommend that you share this guidance with your sampler or laboratory. Consider asking your laboratory to modify their chain of custody form to accommodate all reporting codes so that they are never omitted.

Table 1: Combinations of Reporting Codes

The table below and examples on the following pages detail reporting code relationships for various rules, including the Revised Total Coliform Rule (RTCR), Groundwater Rule (GWR), Disinfection By-Products Rule (DBPR), Surface Water Treatment Rule (SWTR), Lead and Copper Rule (LCR), Inorganic Contaminants Rule (IOC), Synthetic Organic Chemical Rule (SOC), Volatile Organic Contaminants Rule (VOC), Radionuclides Rule, and Per- and Polyfluoroalkyl Substances (PFAS). Please review the examples in the following sections to see additional reporting combinations of Type Codes, Facilities, and Sampling Points for each rule. If you have questions about sampling and coding for any of these rules, please contact the appropriate RIDOH rule manager by calling 401-222-6867 or emailing DOH.RIDWQ@health.ri.gov.

Facility ID (<i>WSF State Assigned ID</i>)		Type Code		Sampling Point	
DS001	distribution system	RT	routine	RTOR	routine original
		RP*	repeat	RPOR*	repeat original; a repeat sample taken from a routine site
		SP	special	RPOT*	repeat other, used for both upstream and downstream
				CHEM	chemistry in the distribution
				DBPR#	disinfection byproducts in the distribution
				LC001	Lead and copper in the distribution system
WL00#	well	RT	routine		
IN00#	intake (surface water sources)	TG*	triggered well	RW00#	raw water
		CO	confirmation		
		SP	special		
TP00#	treatment plant	RT	routine		
MF00#	manifold	SP	special	EP00#	entry point(s)
CC00#	consecutive connection (interconnect)				
SS00#	sampling station				

* Always include the routine original (RTOR) sample number with these samples.

Routine, Repeat, and Triggered Well Reporting Codes for RTCR

In addition to the information on the previous page, please note the following about RTCR drinking water reporting codes.

- Always use the **Type Code RT** for routine sample results.
- Always use the **Type Code RP** for repeat sample results. You must associate the RP sample with the Sample ID# of the routine original sample that was present for total coliform. The Sample ID# (also called a work order number or laboratory ID#) is assigned by the laboratory that is processing the sample, and it can be found on the certificate of analysis or laboratory report. If you have trouble finding the Sample ID#, contact your laboratory for assistance.
- Always use **Type Code TG** for triggered well samples. You must associate the TG sample with the Sample ID# (see above regarding Sample ID#) of the routine original sample that was present for total coliform.
- Always use **Sampling Point RPOR** for repeat originals (this is a repeat sample taken at the sample site that produced the first sample that was total coliform present).
- Always use **Sampling Point RPOT** for upstream/downstream repeat samples.
- **When more than one laboratory is involved, please coordinate between laboratories and (in the case of wholesale and consecutive water systems) other PWSs to avoid missing reporting windows.** Report RTOR sample results that are present for total coliform **before** reporting the repeat samples or triggered well samples that will be taken *because* of the routine original result.

For guidance on how RTCR requirements apply to your PWS, see the RIDOH fact sheet PWS Routine Monitoring for Coliform Bacteria: health.ri.gov/PWSMonitorColiform. If you are hiring a sampler, share your PWS's Coliform Sampling Plan with them.

Examples of Results Reporting by Rule

The sections below contain illustrative examples of how to report results for a variety of analytes. Please note, the examples may not reflect *all* the required fields of all chain of custody forms. Follow instructions from the laboratory and fill the chain of custody form out completely, including fields that do not appear in the examples below. Some labs use a single chain of custody form for repeat samples and others use a separate form for each sample; always follow instructions from the lab to ensure that the chain of custody is maintained.

Example of Reporting RTCR Results

The following is an example illustrating how to report RTCR sample results using codes on chain of custody forms so that the laboratory can accurately report results to RIDOH.

ABC Water System will sample from multiple locations on Main Street referencing their Coliform Sampling Plan.

ABC Water System collects their routine monthly sample from 789 Main Street. ABC Water System fills out one chain of custody form including all the following information.

Facility ID: DS001
Type Code: RT
Sampling Point: RTOR

Collection Address: 789 Main Street

Sample ID#: 0123 (issued by the laboratory after receiving sample)

The sample is present for total coliform (Sample ID# 0123). ABC Water System makes sure the laboratory reports this priority result within 24 hours of being notified that the sample is present for total coliform.

On the following day, ABC Water System collects three (3) repeat samples. ABC Water System fills out one chain of custody form with the appropriate information.

Facility ID: DS001

Type Code: RP

Sampling Point: RPOR (for the repeat original sample)

Sampling Point: RPOT (for the upstream/downstream repeat other samples)

Original Sample ID#: 0123 (sample # of the RTOR that was present for total coliform)

Collection Address: 787 Main Street, 789 Main Street, 790 Main Street

Sample ID#s: 1123, 1124, 1125 (issued by laboratory after receiving samples)

On the same day that ABC Water System collects the three repeat samples, they collect a triggered well sample from Drilled Well #1. ABC Water System fills out one chain of custody form including all the following information.

Facility ID: WL001

Type Code: TG

Sampling Point: RW001

Original Sample ID#: 0123

Collection Address: Drilled Well #1

Sample ID#: 1126 (issued by the laboratory after receiving sample)

Each of the three repeat samples and the triggered well sample have unique Sample ID#s. However, ABC Water System writes in the Original Sample ID# 0123 for all four of the samples taken on the following day, because that is the Sample ID# of the RTOR sample that was present for total coliform.

Example of Reporting SOC/VOC/IOC/PFAS/Rad Results

The following is an example illustrating how to report SOC/VOC/IOC/PFAS/Rad sample results using codes on chain of custody forms so that the laboratory can accurately report results to RIDOH.

ABC Water System will sample from a well source, Drilled Well #1 (WL001). ABC Water System fills out one chain of custody form including all the following information.

Facility ID: WL001

Type Code: RT

Sampling Point: RW001

Collection Address: Drilled Well #1

ABC Water System will sample from a surface water source, RI Reservoir 1 (IN001). ABC Water System fills out one chain of custody form including all the following information.

Facility ID: IN001
Type Code: RT
Sampling Point: RW001
Collection Address: RI Reservoir 1

ABC Water System has a treatment system for the removal of SOC/VOC/IOC/PFAS/Rads. ABC Water System will sample after the treatment, at Treatment Plant 1 (TP001), to ensure the treatment system is working properly. ABC Water System fills out one chain of custody form including all the following information.

Facility ID: TP001
Type Code: RT
Sampling Point: EP001
Collection Address: Treatment Plant 1

Example of Reporting DBPR Results

The following is an example illustrating how to report DBPR sample results using codes on chain of custody forms so that the laboratory can accurately report results to RIDOH.

ABC Water System will sample for disinfection byproducts referencing their DBPR Sampling Plan.

ABC Water System collects their routine quarterly or annual total trihalomethanes (TTHM) and haloacetic acids (HAA5) samples from 111 Main Street. ABC Water System fills out one chain of custody form including all the following information.

Facility ID: DS001
Type Code: RT
Sampling Point: DBPR#
Collection Address: 111 Main Street

XYZ Water System has a surface water source, so each month they sample for total organic carbon (TOC) and alkalinity at the source and for TOC after treatment.

Example of Raw Water Sample Coding for TOC & Alkalinity

Facility ID: IN00#
Type Code: RT
Sampling Point: RW00#
Collection Address: RI Reservoir 1 (Raw)

Example of Finished Water Sample Coding for TOC

Facility ID: TP00#
Type Code: RT
Sampling Point: EP00#
Collection Address: RI Reservoir 1 (Finished)

Reporting Chlorine and/or Heterotrophic Plate Count (HPC) with RTCR Coliform Samples for SWTR and DBPR

SWTR and DBPR both require measuring for chlorine with each coliform sample required under RTCR, including repeats. However, please note that SWTR requires that chlorine be measurable with each coliform sample. If chlorine is measured but a residual is not detected, then a PWS can measure for HPC in lieu of chlorine. An HPC concentration of less than 500 CFUs/mL (colony-forming units per milliliter) is considered a detectable residual and may be used for compliance with SWTR. The residual disinfectant concentration *cannot* be undetectable in more than 5% of the samples each month, for any two (2) consecutive months that the PWS serves water to the public. Be sure that the chlorine residual and/or HPC results are uploaded with each coliform sample, routine and repeat, to avoid a monitoring and/or reporting violation for DBPR or SWTR.

Note: The DBPR and SWTR reporting examples above are not an exhaustive list. There are additional reporting code combinations for DBPR, such as chlorite reporting codes. If your system reports other results for DBPR or SWTR and would like assistance with the correct coding for these analytes, please reach out to the DBPR/SWTR manager by calling 401-222-6867 or by emailing DOH.RIDWQ@health.ri.gov.

Example of Reporting Lead and Copper Results

The following is an example illustrating how to report Lead and Copper (LC) sample results using codes on chain of custody forms so that the laboratory can accurately report results to RIDOH.

ABC Water System will sample from multiple locations within their distribution system. The samples will usually be collected from faucets in residential dwellings. The faucets where samples are collected must be representative of faucets that typically supply water for drinking or cooking. The Lead and Copper Sampling Plan will identify the address of the dwelling and the fixture sampled (for example, “kitchen sink”).

ABC Water System collects their routine sample from 789 Main Street. ABC Water System fills out one chain of custody form including all the following information.

Facility ID: DS001

Type Code: RT

Sampling Point: LC001

Collection Address: 789 Main Street (kitchen sink)

Sample ID#: 0123 (issued by the laboratory after receiving sample)

Conclusion

Remember, the laboratory needs to know the information conveyed by the reporting codes. To ensure the results are reported accurately to RIDOH by the lab, include this information on your chain of custody form. Your PWS can avoid a reporting violation by correctly entering Type Codes, Facilities, Sampling Points, and their associated original Sample ID#s and uploading results within the required timeframe. Coordination between the PWS and the laboratory is key.

If you have any questions, please do not hesitate to contact our office by calling 401-222-6867 or by emailing DOH.RIDWQ@health.ri.gov.