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Instructions for Level 2 Assessment Form

GENERAL INFORMATION

Pennsylvania's Revised Total Coliform Rule (RTCR) requires all public water supply systems (PWS) to complete a Level 2 Assessment in response to the triggers identified in 25 Pa. Code Chapter 109.202(c)(5). The purpose of the Level 2 Assessment is to identify the possible presence of sanitary defects and defects in distribution system coliform monitoring practices. This evaluation provides a more detailed examination of the PWS than a Level 1 Assessment. The Level 2 Assessment must be conducted by an operator(s) properly certified for the technologies of the PWS being assessed (Lead Assessor).

A sanitary defect is a defect that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a barrier that is already in place. If a sanitary defect is identified during the assessment, the Assessor must describe the sanitary defect, what corrective actions were completed, and a proposed timetable for corrective actions not yet completed.

Level 2 Assessments must be submitted to the Department of Environmental Protection (DEP) within 30 days of a PWS triggering the assessment. If upon review, DEP determines that the assessment is insufficient, DEP will send the PWS written notification. The system is required to consult with DEP within 14 days of receiving notification of an insufficient assessment.

ITEM-BY-ITEM INSTRUCTIONS

Section I. General Information

Section I is to identify the public water system that is submitting the Level 2 Assessment form.

PWS Name: Name of the public water system (PWS).

PWS ID: The seven-digit PWS identification number assigned by DEP.

Contact Name: Name of the person who is the point of contact for the PWS.

Phone #: Phone number of the PWS contact person.

PWS Address: Mailing address of the PWS.

E-mail: E-mail address for the PWS contact person.

Name of Lead Assessor: Name of the individual conducting the Level 2 Assessment for the water system.

Date Completed: Date that the Level 2 Assessment was completed.

Lead Assessor's DEP Client ID: The DEP client ID of the Lead Assessor

Classes & Subclasses: The operator classes and subclasses held by the Lead Assessor

Level 2 Trigger:

***E. Coli* Positive:** Check YES if the Level 2 Assessment was triggered by an *E. Coli* positive sample; check NO if it was triggered by a different issue.

If yes, which sample(s) from section II? If the assessment was triggered by an *E. Coli* positive sample, indicate which sample number(s) from the tables in Section II. (page 1 and 6) were *E. Coli* positive.

2nd Level 1: Check YES if the Level 2 Assessment was triggered by two Level 1 Assessments, check No if it was triggered by a different issue.

Date of 1st Level 1: If the assessment is required because of two Level 1 triggers, indicate the date the 1st Level 1 trigger occurred.

Section II. Positive Sample Information

Section II is to identify specific information about any positive RTCR sample results during the monthly monitoring period. This information includes: sample location ID and name, sample date and collector, chlorine residual data, and questions regarding sample collection.

There are four positive sample tables under this section requiring identical information; a separate table should be used for each location that had a positive sample. Therefore, if a system had one positive monthly sample then only one table should be completed. If there were positive results at multiple locations within the distribution system or multiple positive samples at one location, including check samples, then additional tables should be completed. If more than four locations or samples were positive, there are additional tables listed on page 7 of this form.

Positive Sample Table:

- **Sample Location ID#:** The unique three digit ID # used to identify RTCR sampling locations (specified in the sample siting plan)
- **Sample Location Name:** The name used when referring to the sampling location (e.g. High St. Storage Tank) as specified in the sample siting plan.
- **Positive Sample Date:** The date that the positive sample was collected.
- **Name of Sample Collector:** The name of the individual from either the water system or the laboratory who collected the sample.
Note: The individual who collected each sample should be interviewed in order to answer the questions in this section.
- **Chlorine Residual at Time of Sample Collection:** In the first box, check free, total, or not measured to describe the residual monitoring conducted. In the second box, write the residual amount in mg/L that was measured.
- **Was the sample collected according to the Sample Siting Plan?:** Answer this question by checking either YES or NO. Each PWS is required to have a complete RTCR sample siting plan which specifies where and when all samples are to be collected each month, including information for check samples. If the samples were collected in accordance with this plan then the Assessor should check YES. If the samples were NOT collected in accordance with this plan (different location or schedule) then the Assessor should check NO.
- **Was the condition of the sample tap appropriate for collection?:** Answer this question by checking either YES or NO. Any sample tap used for RTCR sample collection should be clean, free of leaks and debris, and be located away from possible sources of bacteriological contamination. If any of these conditions were not met the Assessor should check NO.
- **Were the samples collected in accordance with proper sample collection protocols?:** Answer this question by checking either YES or NO. The sample collector must follow proper collection protocols such as removing the aerator, flushing the tap until water temperature has stabilized, and avoiding contact with the inside of the sample bottle or cap. If sample collection protocols were not properly followed then the Assessor should check NO.

Note: If the shaded NO box is checked as the answer to any of the three questions listed above, it should be considered an issue and be described in Section IV. Issue Descriptions and Corrective Actions.

Section III. Assessment Questions

Section III is broken into seven subsections (A-G) relating to the following specific areas of a PWS; source (well, spring, or surface water), treatment process, distribution/plumbing system, and storage tank. Each subsection contains questions specific to that heading which should be answered by checking the box under the appropriate answer (YES, NO, N/A, or Unknown). Any time the answer is checked in a shaded box, the Assessor should consider this to be an issue and should complete a box under *Section V. Issue Descriptions and Corrective Actions*.

When answering the questions in Subsections A through G, the Assessor should answer the question in relation to what was occurring in the system at the time of the positive sample, not what normally occurs or what has occurred in the past. The purpose of these questions is to determine the reason for the positive sample, therefore answering a question with the status of the PWS a year ago will not help determine the problem if things have since changed.

If a subsection does not apply to a PWS (i.e. the “source-well” section would not apply to a PWS with surface water sources only), then the Assessor should check the box above the subsection and continue to the next one.

Below each subsection is space for the Assessor’s name and client ID. The purpose of this is to differentiate between which sections were assessed by which certified operator in the case that multiple certified operators are conducting the assessment. The Assessors should provide this information only under each section that they complete. For example, if a Class E (Distribution) operator is completing the distribution section of the assessment, this individual would sign below subsection E or F. If only one certified operator is completing the entire assessment, he/she may just initial on the “Assessor Name” line under each section as their name and client ID will be listed in the General Information section of the assessment.

Instructions regarding subsections E and F: If a PWS has a single service connection, such as a restaurant or a community water system that is an apartment building, the Assessor should complete subsection *E. Plumbing System for a PWS with a Single Service Connection* and skip subsection F. However, if a PWS has multiple service connections such as a business park, state park, or a community water system with multiple homes, the Assessor should complete subsection *F. Distribution System for PWS with Multiple Service Connections*, and skip subsection E.

For systems with multiple service connections (in particular, large systems with different pressure zones), when the Assessor is answering questions in subsection F, they may choose to only look at distribution components in the vicinity of the positive sample. For example, if the positive sample occurred in one pressure zone it may not be necessary to look at fire hydrants and valves located on the other side of town in another pressure zone. In depth knowledge of the distribution system must be known to make this determination, if pressure zones and distribution system specifics are unknown by the Assessor the entire distribution system should still be assessed.

If the Assessor is unsure of what is being asked or does not know how to answer any of the questions in Section III., he/she may contact the local Sanitarian for further assistance.

Section IV: Water Quality Data Table

In this table, the Assessor should indicate what water quality samples were taken in conjunction with the assessment. There are three parameters listed (chlorine, turbidity, and coliform bacteria) and additional space for any others. Next to each parameter there are three columns: raw, entry point, and distribution. In each of these columns the Assessor should list the number of samples taken at each location.

Example: If an Assessor collected a turbidity grab sample at the source, a chlorine residual, turbidity, and bacteria sample at each of the two entry points, and a chlorine residual, turbidity, and coliform bacteria at four locations in the distribution system, the table would look as such:

Parameter	# of Each Sample Type Collected		
	Raw (R)	Entry Point (EP)	Distribution (D)
Chlorine Residual (mg/L)		2	4
Turbidity (NTU)	1	2	4
Coliform Bacteria		2	4

Section V: Issue Descriptions and Corrective Actions

The Assessor(s) must use this section to indicate what issues were found during the assessment, and if necessary what corrective actions will be taken to resolve the issue and in what timeframe. Under this section, there are four charts with three headings. If more than four issues were found, the Assessor should use page 8 of this form to identify additional issues; only one issue should be listed in each box.

Issue Descriptions and Corrective Actions Table:

- **Issue-Section Letter & Question #:** In this box, the Assessor should indicate in what subsection and what question the issue was determined.

Example: If the Assessor answered YES to question #1 under *Subsection D. Treatment Process* then they should enter D 1 in this box.

- **Issue-Description:** In this box, the Assessor should explain in detail the issue that was determined.

Example: The PWS may have determined that the UV bulb had burned out prior to the water sample being taken; therefore, the water was not properly disinfected.

Example for description of a shaded box NOT needing a corrective action: The PWS may have checked the box for question A 1, which indicates that the well is located in a pit. The PWS however feels that this issue is not a likely cause of contamination, because the pit has a water tight lid and is always dry. In this case a description is still necessary because a shaded box was checked; however no corrective action would be necessary for this issue.

If the same situation exists where a well is located in a pit and water does enter the pit during weather events, or the pit shows evidence of vermin, then the Assessor should complete the corrective action box of the table.

- **Corrective Action:** In this box, the Assessor should describe the corrective actions that the system has taken or plans to take to correct the issue.

Example: If the UV light bulb had burned out prior to the sample being taken but it has since been replaced, in this box the Assessor would write, "UV bulb was replaced on DATE BULB REPLACED, the intensity meter shows the unit is functioning properly and the solenoid shut off valve is plugged into the intensity meter."

Example: However, if the issue was that the sanitary seal well cap on the well was broken and had not yet been replaced the Assessor would indicate here when the PWS planned to replace the broken well cap. Such as "The PWS has an appointment with XYZ Well Drilling Company to replace the sanitary seal well cap on DATE WELL CAP WILL BE REPLACED."

Note: If no issues were found during the assessment, the Lead Assessor may check the box at the end of this section "No issues were found during the assessment".

Section VI: Verification

The Lead Assessor must verify that the information provided in the form is accurate and correct. The name of the Lead Assessor should be printed and that individual must sign and date the form.

The completed assessment form must be submitted to the appropriate DEP office within 30 days of the PWS triggering a Level 2 Assessment.

The completed form should be addressed to: PA DEP – Safe Drinking Water, at the address of the appropriate district office having jurisdiction over the water company (from the list on pages 9-10). For counties marked with an asterisk (*), address to the appropriate County Health Department (CHD), which is an agent of DEP for the Safe Drinking Water Program.

If upon review, DEP determines that the assessment is insufficient, DEP will send the PWS written notification. **The public water supplier must consult with DEP within 14 days of receiving written notification of an insufficient assessment.**